API Well Number: 43047529960000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3
AMENDED REPORT ☑

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER NBU 1022-10B3DS	
2. TYPE OF WORK DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○	**3. FIELD OR WILDCAT** NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO	**5. UNIT or COMMUNITIZATION AGREEMENT NAME** NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.	**7. OPERATOR PHONE** 720 929-6515
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217	**9. OPERATOR E-MAIL** julie.jacobson@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UO 01197	**11. MINERAL OWNERSHIP** FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
	12. SURFACE OWNERSHIP FEDERAL ○ INDIAN ○ STATE ◉ FEE ○
13. NAME OF SURFACE OWNER (if box 12 = 'fee')	**14. SURFACE OWNER PHONE (if box 12 = 'fee')**
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')	**16. SURFACE OWNER E-MAIL (if box 12 = 'fee')**
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	**18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS** YES ◉ (Submit Commingling Application) NO ○
	19. SLANT VERTICAL ○ DIRECTIONAL ◉ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	922 FNL 1715 FWL	NENW	10	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	1038 FNL 1990 FEL	NWNE	10	10.0 S	22.0 E	S
At Total Depth	1038 FNL 1990 FEL	NWNE	10	10.0 S	22.0 E	S

21. COUNTY UINTAH	**22. DISTANCE TO NEAREST LEASE LINE (Feet)** 276	**23. NUMBER OF ACRES IN DRILLING UNIT** 40
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 448	**26. PROPOSED DEPTH** MD: 9101 TVD: 8798
27. ELEVATION - GROUND LEVEL 5303	**28. BOND NUMBER** 22013542	**29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE** 43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	11	8.625	0 - 2480	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
PROD	7.875	4.5	0 - 9101	11.6	I-80 LT&C	12.0	Premium Lite High Strength	300	3.38	12.0
							50/50 Poz	1240	1.31	14.3

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☑ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME Danielle Piernot	**TITLE** Regulatory Analyst	**PHONE** 720 929-6156
SIGNATURE	**DATE** 07/19/2012	**EMAIL** danielle.piernot@anadarko.com

API NUMBER ASSIGNED
43047529960000

APPROVAL

Permit Manager

RECEIVED: November 08, 2012

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-10B3DS

Surface: 922 FNL/ 1715 FWL NENW
BHL: 1038 FNL / 1990 FEL NWNE

Section 10 T10S R22E

Uintah County, Utah
Mineral Lease: UT ST UO 01197-A ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1,280'	
Birds Nest	1,518'	Water
Mahogany	2,033'	Water
Wasatch	4,364'	Gas
Mesaverde	6,693'	Gas
Sego	8,798'	Gas
TVD	8,798'	
TD	9,101'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 9101' TVD, approximately equals 5,367 psi (0.61 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,454 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

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Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

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on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

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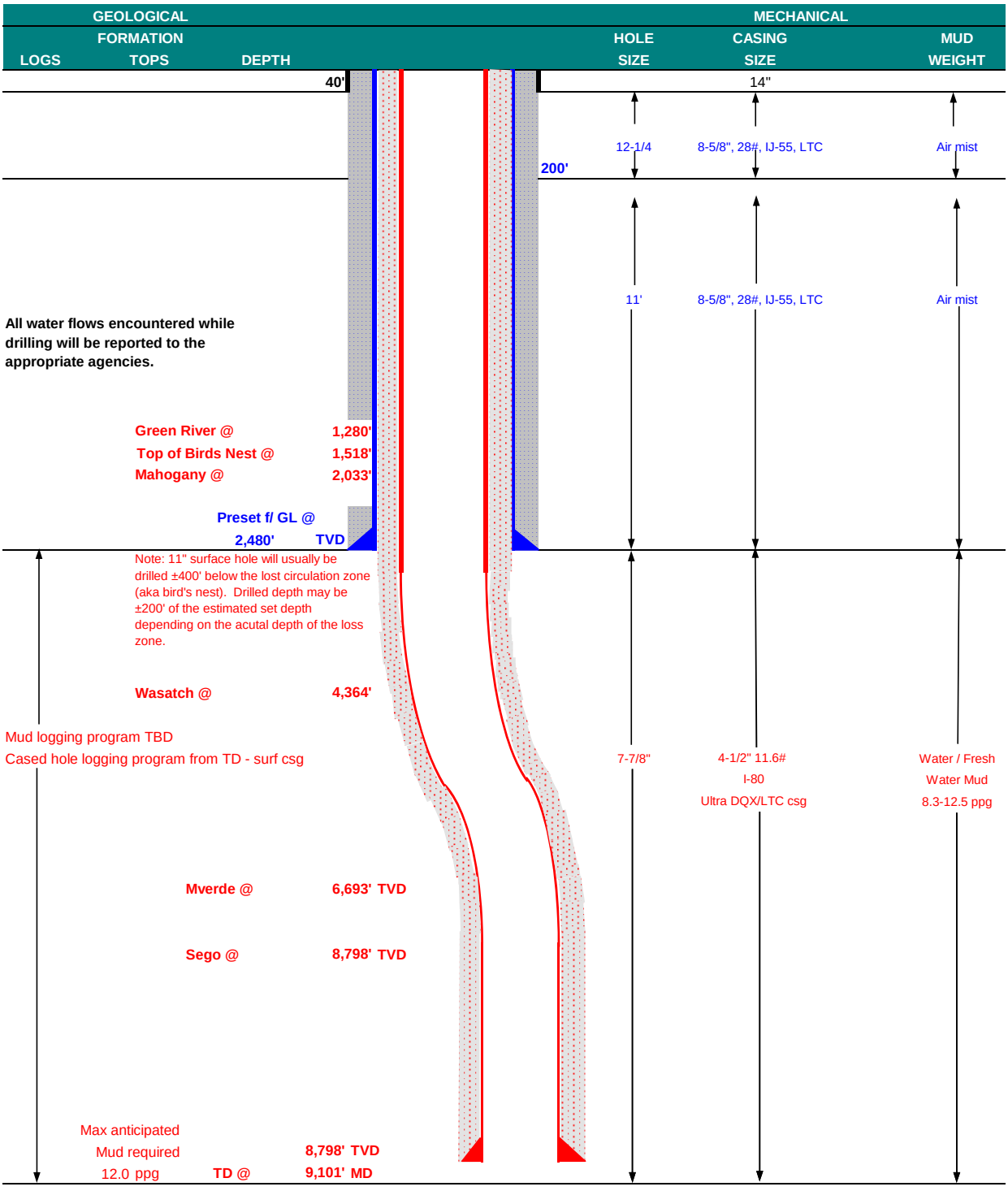
KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	July 19, 2012	
WELL NAME	**NBU 1022-10B3DS**		TD	8,798' TVD	9,101' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	5302.6
SURFACE LOCATION	NENW	922' FNL	1715' FWL	Sec 10 T 10S	R 22E
	Latitude: 39.968241	Longitude: -109.428571		NAD 27	
BTM HOLE LOCATION	NWNE	1038 FNL	1990 FEL	Sec 10 T 10S	R 22E
	Latitude: 39.967891	Longitude: -109.423068		NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	LTC	DQX TENSION
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,480	28.00	IJ-55	LTC	2.18	1.62	5.72	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.16		3.10
								7,780	6,350	223,000	267,035
	4-1/2"	5,000	to	9,101'	11.60	I-80	LTC	1.11	1.16	5.74	

Surface Casing:

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	1,980'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,861'	Premium Lite II +0.25 pps	300	35%	12.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,240'	50/50 Poz/G + 10% salt + 2% gel	1,240	35%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____

Nick Spence / Danny Showers / Travis Hansell

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

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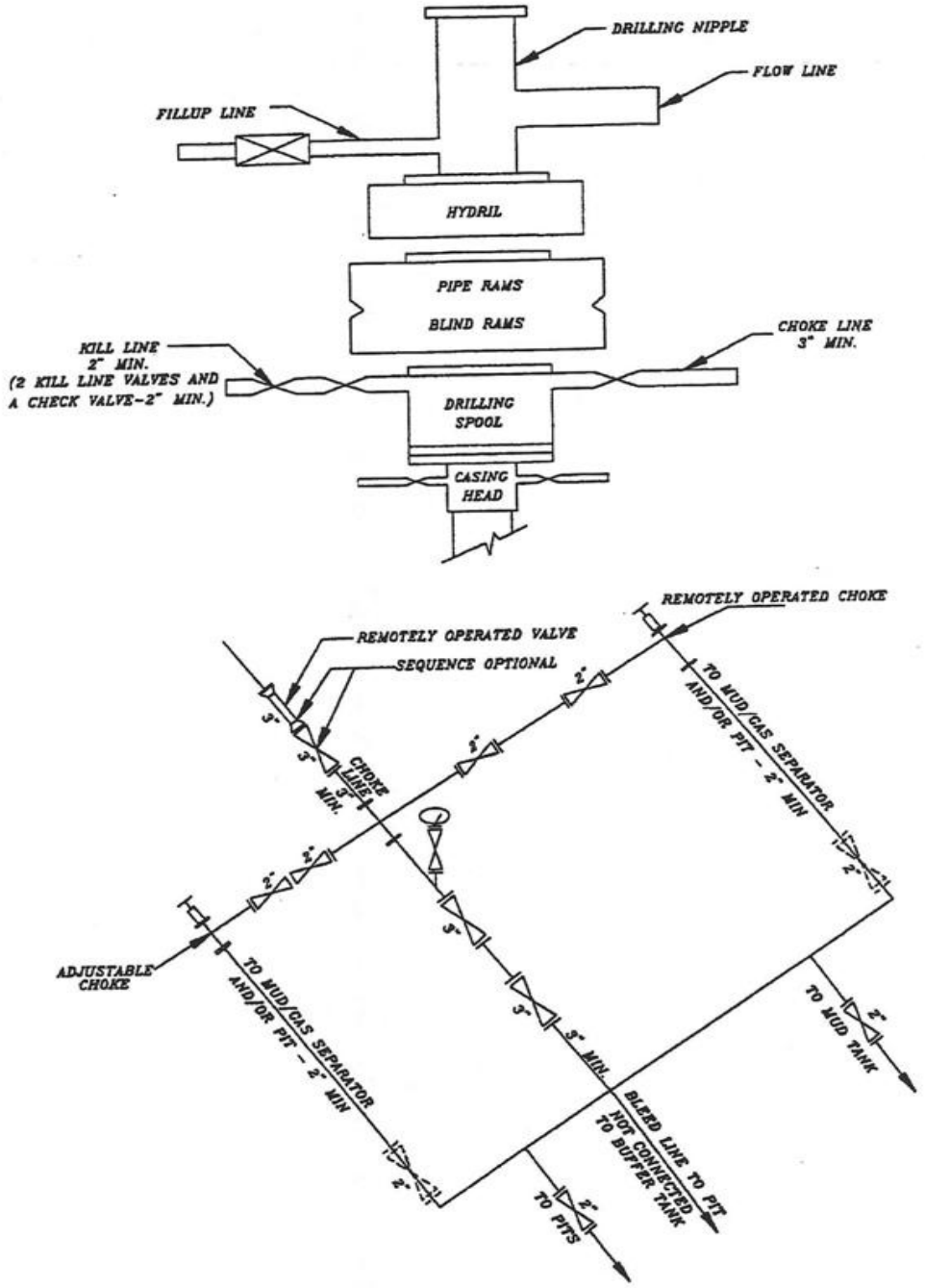
EXHIBIT A
NBU 1022-10B3DS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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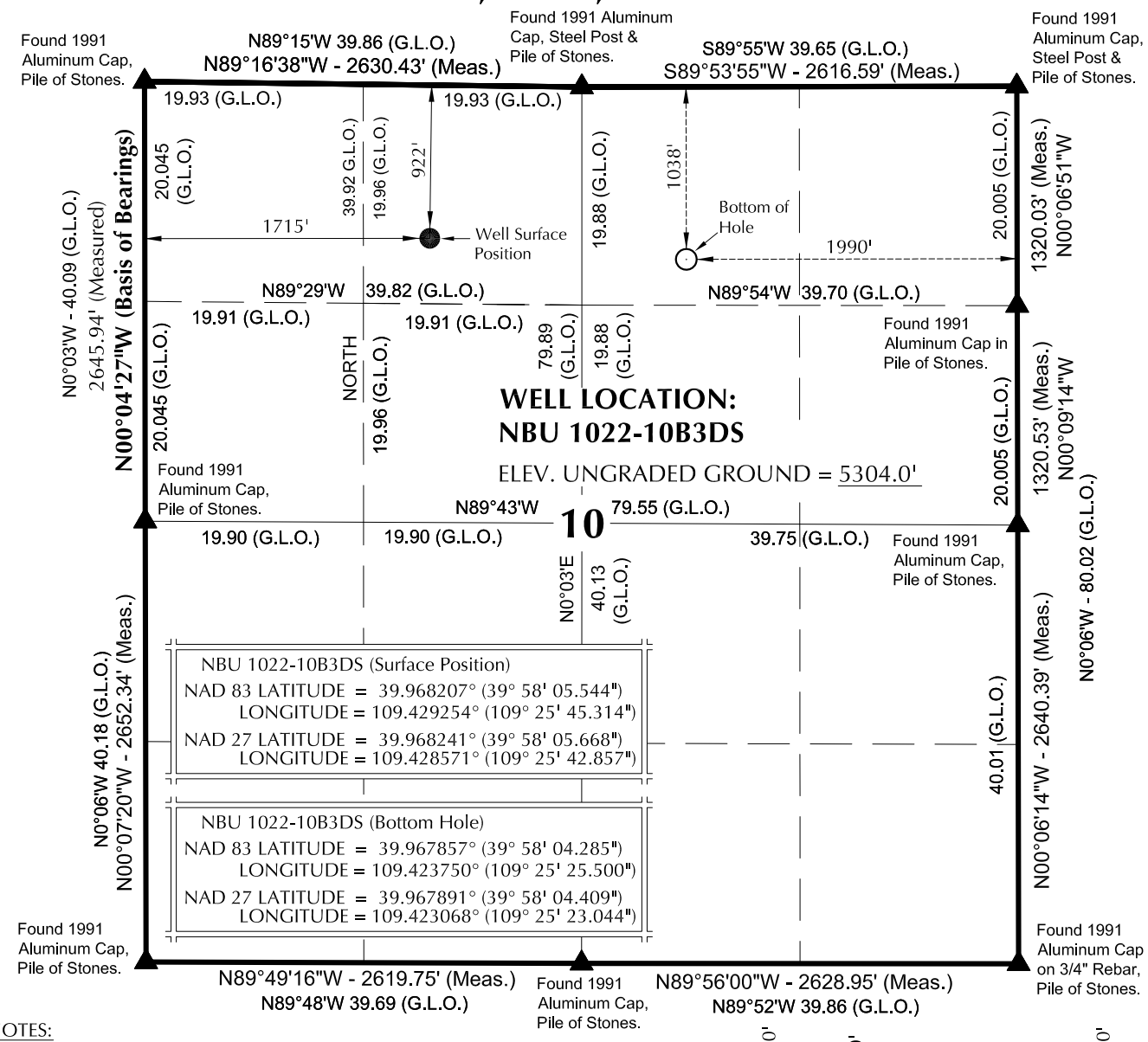
API Well Number: 43047529960000

T10S, R22E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears S85°18'18"E 1548.33' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

1000' 500' 0' 1000'

SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

6-14-12

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

No.6028691 JOHN R LAUGHE REGISTERED LAND SURVEYOR STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 1022-10C

NBU 1022-10B3DS
WELL PLAT
1038' FNL, 1990' FEL (Bottom Hole)
NW ¼ NE ¼ OF SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

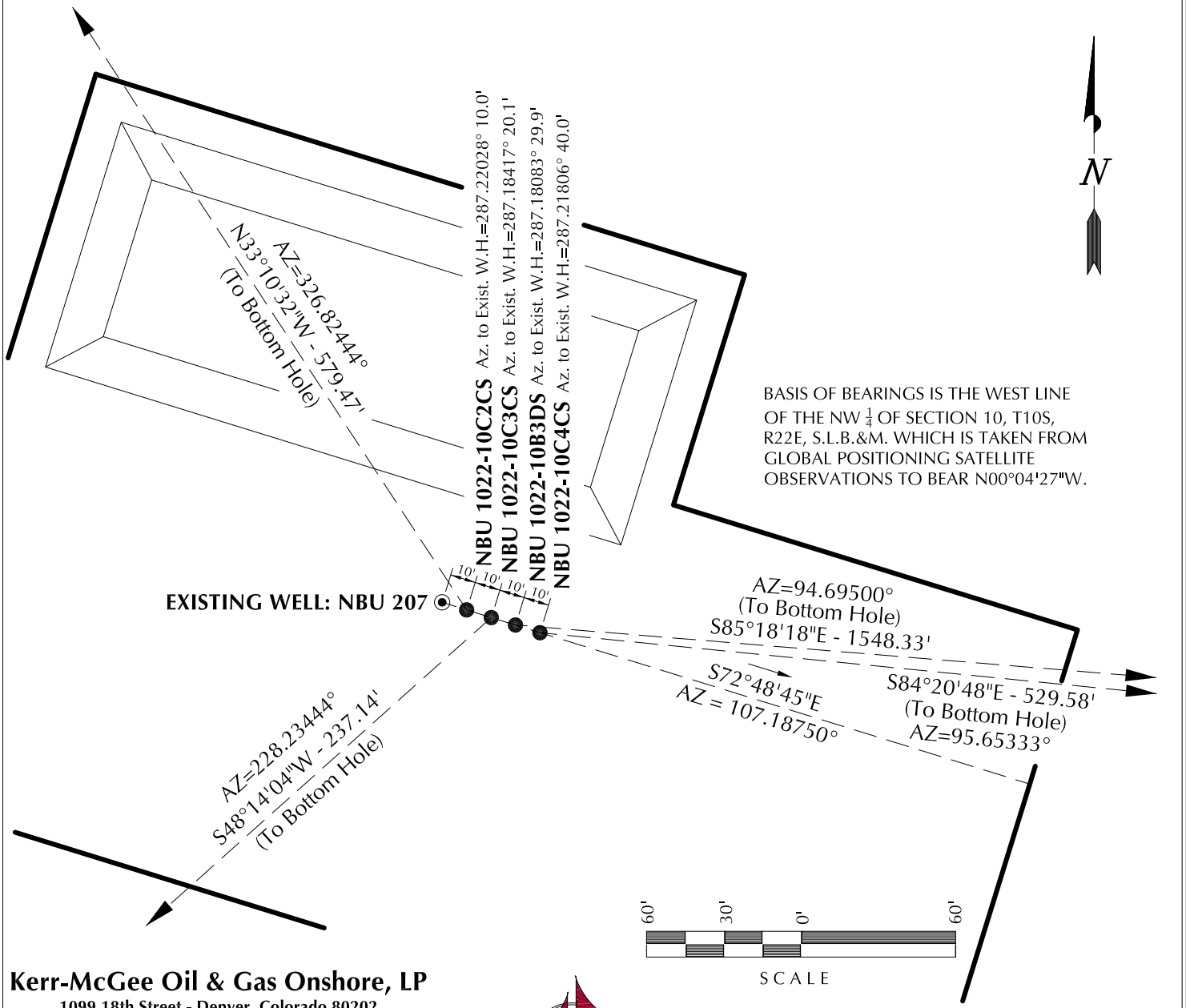
DATE SURVEYED: 6-4-12	SURVEYED BY: A.F.	SHEET NO: 3
DATE DRAWN: 6-7-12	DRAWN BY: M.W.W.	3 OF 16
SCALE: 1" = 1000'	Date Last Revised:	

RECEIVED: July 19, 2012

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 1022-10C2CS	39°58'05.602" 39.968223°	109°25'45.559" 109.429322°	39°58'05.726" 39.968257°	109°25'43.102" 109.428639°	916' FNL 1695' FWL	39°58'10.395" 39.969554°	109°25'49.628" 109.430452°	39°58'10.519" 39.969589°	109°25'47.171" 109.429770°	435' FNL 1379' FWL
NBU 1022-10C3CS	39°58'05.572" 39.968215°	109°25'45.435" 109.429288°	39°58'05.696" 39.968249°	109°25'42.978" 109.428605°	919' FNL 1705' FWL	39°58'04.012" 39.967781°	109°25'47.707" 109.429919°	39°58'04.136" 39.967816°	109°25'45.250" 109.429236°	1079' FNL 1528' FWL
NBU 1022-10B3DS	39°58'05.544" 39.968207°	109°25'45.314" 109.429254°	39°58'05.668" 39.968241°	109°25'42.857" 109.428571°	922' FNL 1715' FWL	39°58'04.285" 39.967857°	109°25'25.500" 109.423750°	39°58'04.409" 39.967891°	109°25'23.044" 109.423068°	1038' FNL 1990' FEL
NBU 1022-10C4CS	39°58'05.514" 39.968198°	109°25'45.191" 109.429220°	39°58'05.638" 39.968233°	109°25'42.734" 109.428537°	924' FNL 1724' FWL	39°58'04.997" 39.968055°	109°25'38.425" 109.427340°	39°58'05.120" 39.968089°	109°25'35.968" 109.426658°	970' FNL 2251' FWL
NBU 207	39°58'05.631" 39.968231°	109°25'45.681" 109.429356°	39°58'05.755" 39.968265°	109°25'43.224" 109.428673°	913' FNL 1686' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-10C2CS	485.0'	-317.1'	NBU 1022-10C3CS	-158.0'	-176.9'	NBU 1022-10B3DS	-126.7'	1,543.1'	NBU 1022-10C4CS	-52.2'	527.0'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-10C

WELL PAD INTERFERENCE PLAT

WELLS - NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 6-4-12	SURVEYED BY: A.F.	SHEET NO: 5
DATE DRAWN: 6-7-12	DRAWN BY: M.W.W.	5 OF 16
SCALE: 1" = 60'	Date Last Revised:	

RECEIVED: July 19, 2012

API Well Number: 43047529960000

EXISTING ACCESS ROAD

PROPOSED ACCESS ROAD (RE-ROUTE)

EXISTING 4" SURFACE GAS PIPELINE TO BE UPGRADED TO 6"

N33°10'32"W - 579.47' (TO BOTTOM HOLE)

TOPSOIL STOCKPILE

MOVE EXISTING SPOILS PILE TO PROPOSED LOCATION

EXISTING SEPARATOR

EXISTING TANK AND BERM

RECLAIMED PIT

RESERVE PIT & EXCESS CUT STOCKPILE

S48°14'04"W - 237.14' (TO BOTTOM HOLE)

EXISTING WELL PAD

ANCHOR

BOILER

GENERATOR

DIESEL TANK

MUD PUMP 1

MUD PUMP 2

MUD TANK

SHAKER TANK

RESERVE PIT 12' DEPTH SLOPE 1.5:1

EXISTING WELL: NBU 207

NBU 1022-10C2CS 10'

NBU 1022-10C3CS 10'

NBU 1022-10B3DS 10'

NBU 1022-10C4CS 10'

PIPERACKS

PIPETUBS

DERRICK STAND

6" SURFACE GAS LINE

CUT

FILL

RESERVE PIT & EXCESS CUT STOCKPILE

MOVE EXISTING SPOILS PILE TO PROPOSED LOCATION

TOPSOIL STOCKPILE

S85°18'18"E - 1548.33' (TO BOTTOM HOLE)

S84°20'48"E - 529.58' (TO BOTTOM HOLE)

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

WELL PAD - NBU 1022-10C DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5304.0'
FINISHED GRADE ELEVATION = 5302.6'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.21 ACRES
TOTAL DISTURBANCE AREA = 4.25 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 14,848 C.Y.
TOTAL FILL FOR WELL PAD = 13,316 C.Y.
TOPSOIL @ 6" DEPTH = 1,831 C.Y.
EXCESS MATERIAL = 1,532 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 7,960 C.Y.
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 30,260 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'

2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

WELL PAD - NBU 1022-10C

WELL PAD - LOCATION LAYOUT
NBU 1022-10C2CS, NBU 1022-10C3CS,
NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

SCALE: 1"=60' DATE: 6/12/12 SHEET NO: 6 6 OF 16

REVISED:

K:\ANADARKO\2012\2012_18_NBU_FOCUS_1022-10\DWGS\NBU 1022-10C\NBU 1022-10C.dwg jacob

RECEIVED: July 19, 2012

API Well Number: 43047529960000

EXISTING ACCESS ROAD

PROPOSED ACCESS ROAD (RE-ROUTE)

EXISTING 4" SURFACE GAS PIPELINE TO BE UPGRADED TO 6"

N33°10'32"W - 579.47' (TO BOTTOM HOLE)

TOPSOIL STOCKPILE

MOVE EXISTING SPOILS PILE TO PROPOSED LOCATION

EXISTING SEPARATOR

EXISTING TANK AND BERM

RECLAIMED PIT

RESERVE PIT & EXCESS CUT STOCKPILE

S48°14'04"W - 237.14' (TO BOTTOM HOLE)

EXISTING WELL PAD

EXISTING WELL: NBU 207
NBU 1022-10C2CS
NBU 1022-10C3CS
NBU 1022-10B3DS
NBU 1022-10C4CS

COMPLETIONS PIT (CUTTINGS AREA)
12' DEPTH
SLOPE 1.5:1

6" SURFACE GAS LINE

CUT

FILL

RESERVE PIT & EXCESS CUT STOCKPILE

MOVE EXISTING SPOILS PILE TO PROPOSED LOCATION

TOPSOIL STOCKPILE

S85°18'18"E - 1548.33' (TO BOTTOM HOLE)

S84°20'48"E - 529.58' (TO BOTTOM HOLE)

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

WELL PAD - NBU 1022-10C (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5304.0'
FINISHED GRADE ELEVATION = 5302.6'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.21 ACRES
TOTAL DISTURBANCE AREA = 4.25 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
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WELL PAD - NBU 1022-10C

WELL PAD - LOCATION LAYOUT
NBU 1022-10C2CS, NBU 1022-10C3CS,
NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 14,848 C.Y.
TOTAL FILL FOR WELL PAD = 13,316 C.Y.
TOPSOIL @ 6" DEPTH = 1,831 C.Y.
EXCESS MATERIAL = 1,532 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
+/- 6,030 C.Y.
COMPLETIONS PIT CAPACITY
(2' OF FREEBOARD)
+/- 22,630 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

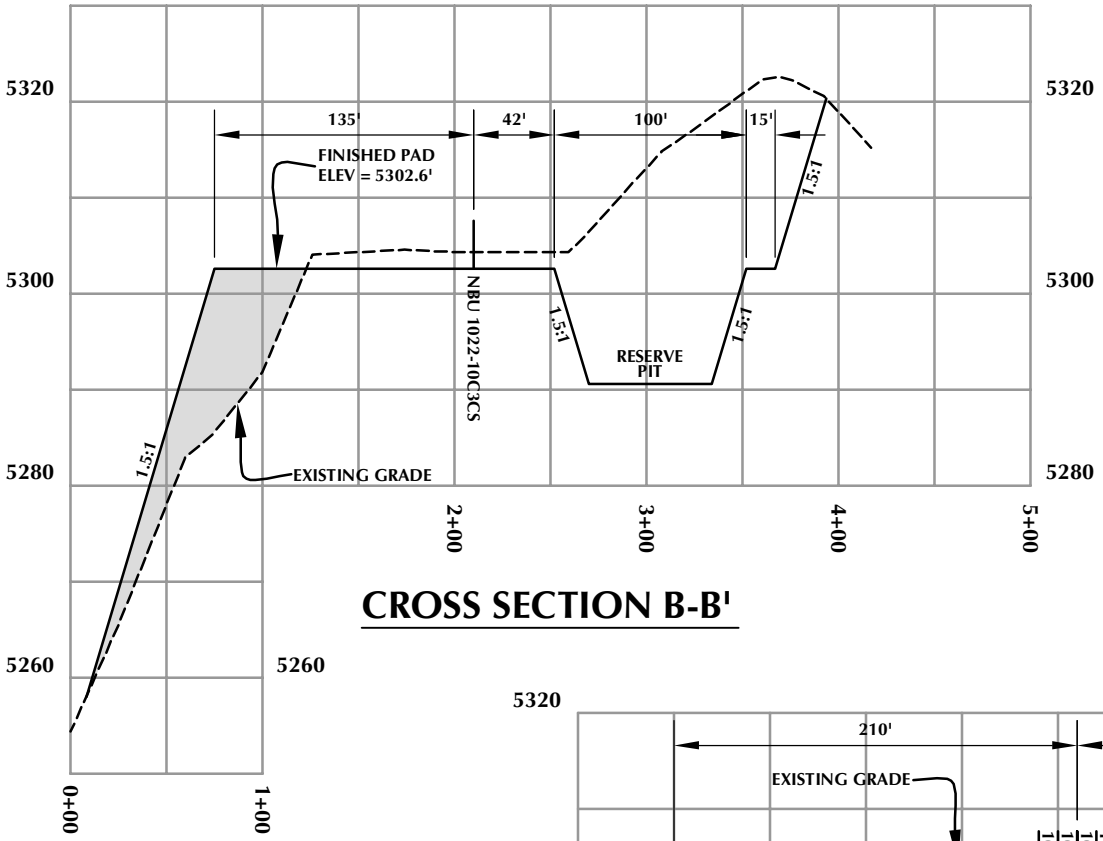
HORIZONTAL 0 30' 60' 1" = 60'
2' CONTOURS

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

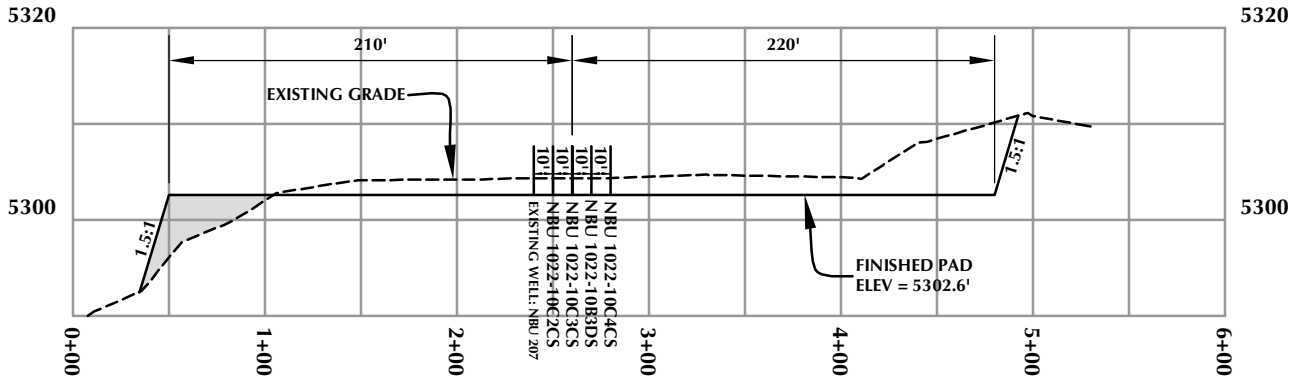
SCALE: 1"=60' | DATE: 6/12/12 | SHEET NO: 6B 6B OF 16
REVISED:

K:\ANADARKO\2012\2012_18_NBU_FOCUS_1022-10\DWGS\NBU 1022-10C\NBU 1022-10C.dwg jacob

RECEIVED: July 19, 2012



CROSS SECTION B-B'



CROSS SECTION A-A'

WELL PAD - NBU 1022-10C

WELL PAD - CROSS SECTIONS
NBU 1022-10C2CS, NBU 1022-10C3CS,
NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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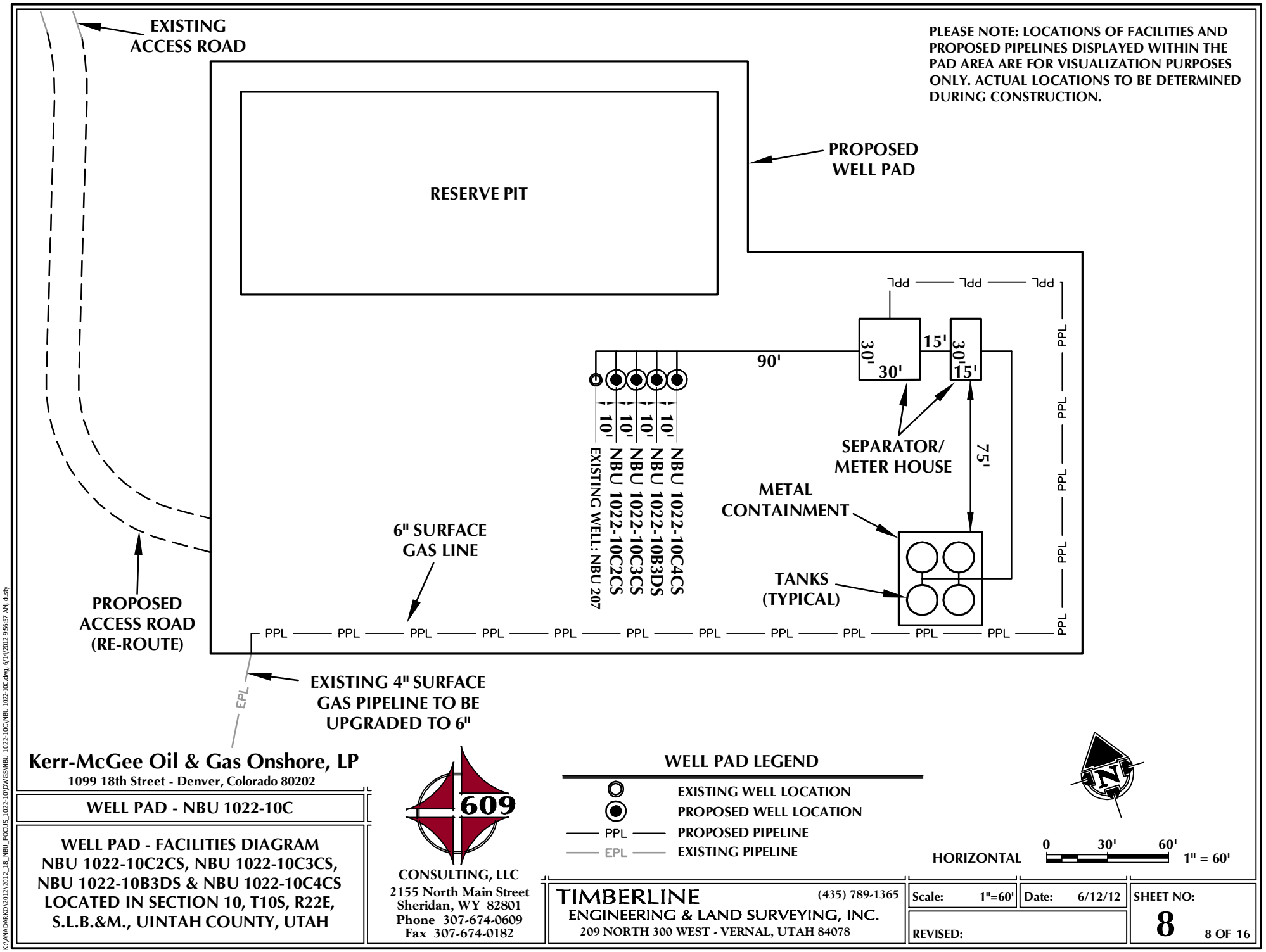
HORIZONTAL 0 30' 60' 1" = 60'
VERTICAL 0 10' 20' 1" = 20'

Scale: 1"=60' | Date: 6/12/12 | SHEET NO: 7 7 OF 16
REVISED:

K:\ANADARKO\2012\2012_18_NBU_FOCUS_1022-10\DWGS\NBU 1022-10C\NBU 1022-10C.dwg, 6/14/2012 9:54:40 AM, dusty

RECEIVED: July 19, 2012

API Well Number: 43047529960000



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-10C

WELL PAD - FACILITIES DIAGRAM
NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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Sheridan, WY 82801
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WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'

TIMBERLINE ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078
(435) 789-1365

Scale: 1"=60' | Date: 6/12/12 | SHEET NO: 8 (8 OF 16)
REVISED:

K:\ANADARKO\2012\2012_18_NBU_FOCUS_1022-10\DWGS\NBU 1022-10C\NBU 1022-10C.dwg, 6/14/2012 9:56:57 AM, dusty

RECEIVED: July 19, 2012

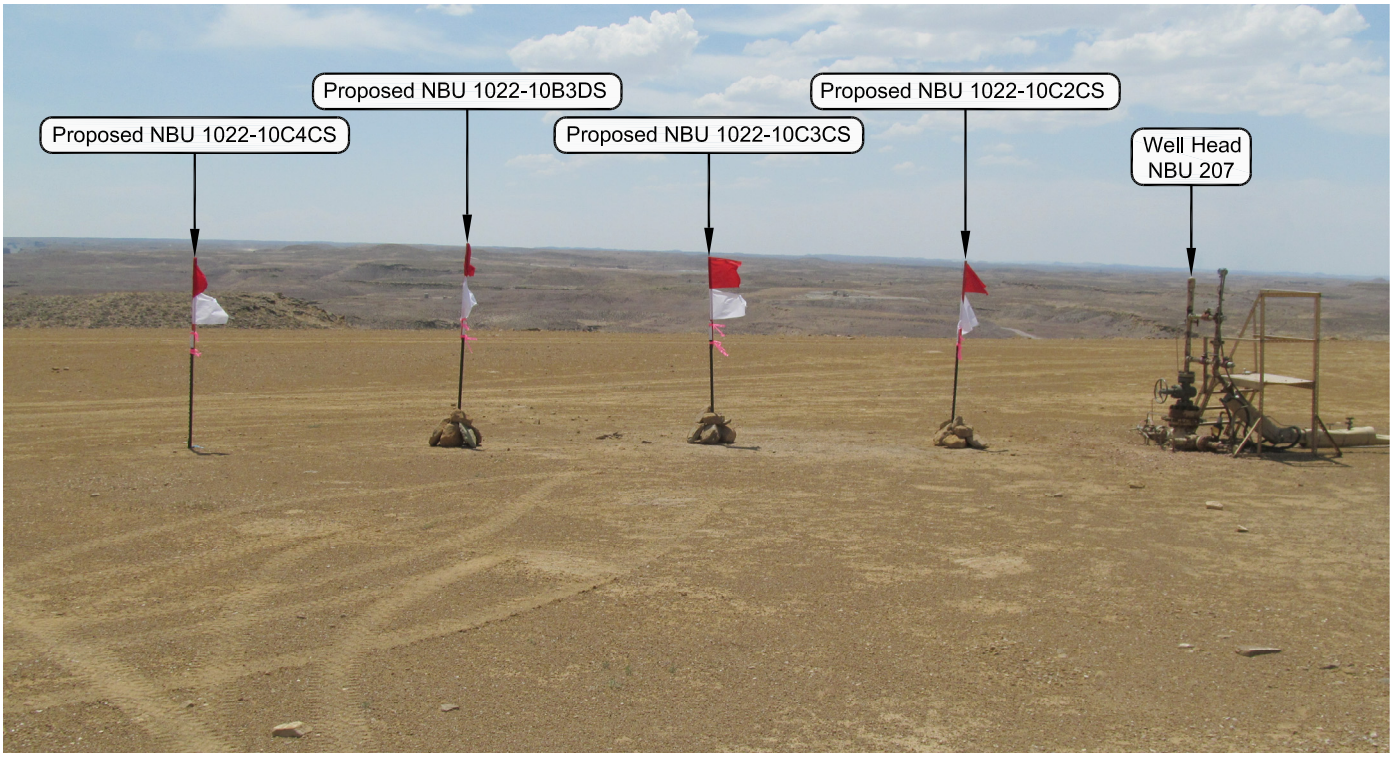

PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE CAMERA ANGLE: SOUTHWESTERLY

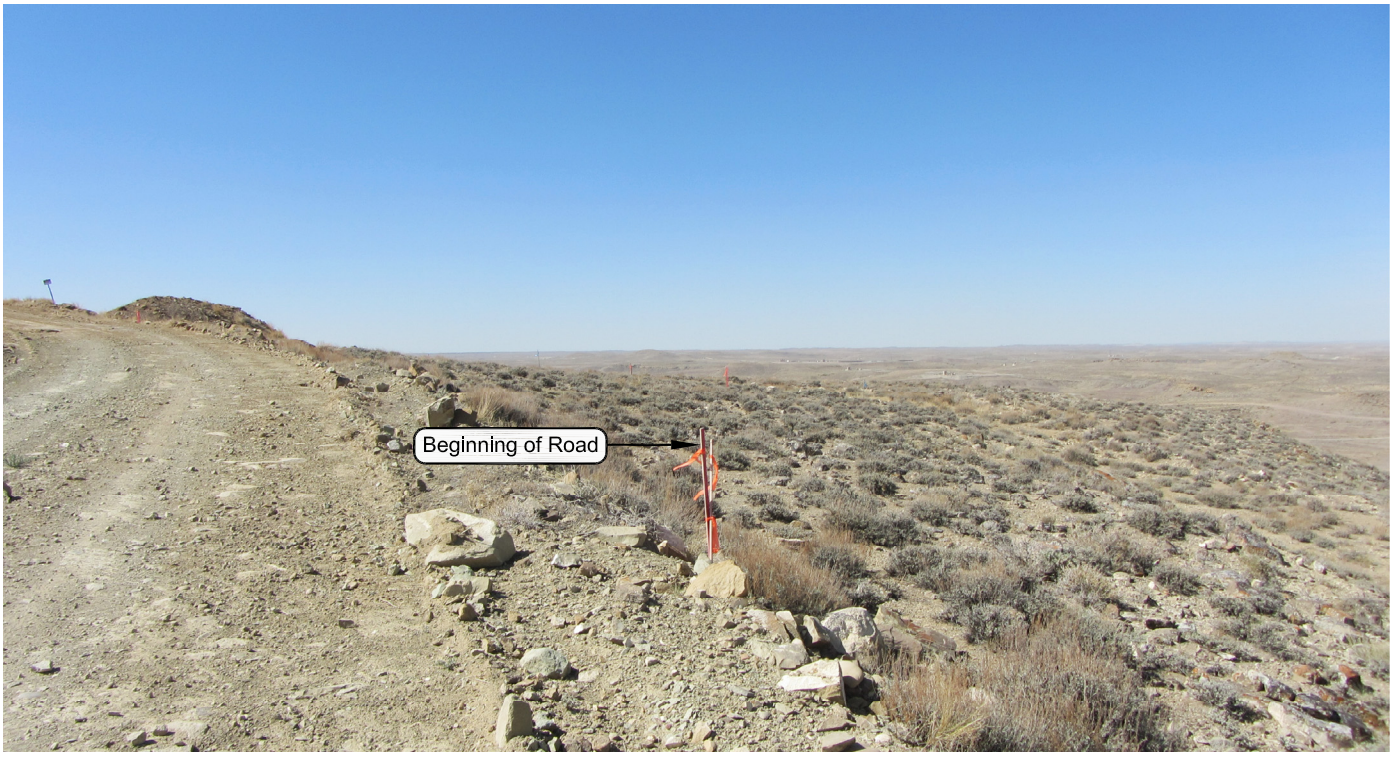

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD CAMERA ANGLE: SOUTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-10C

LOCATION PHOTOS
NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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Sheridan WY 82801
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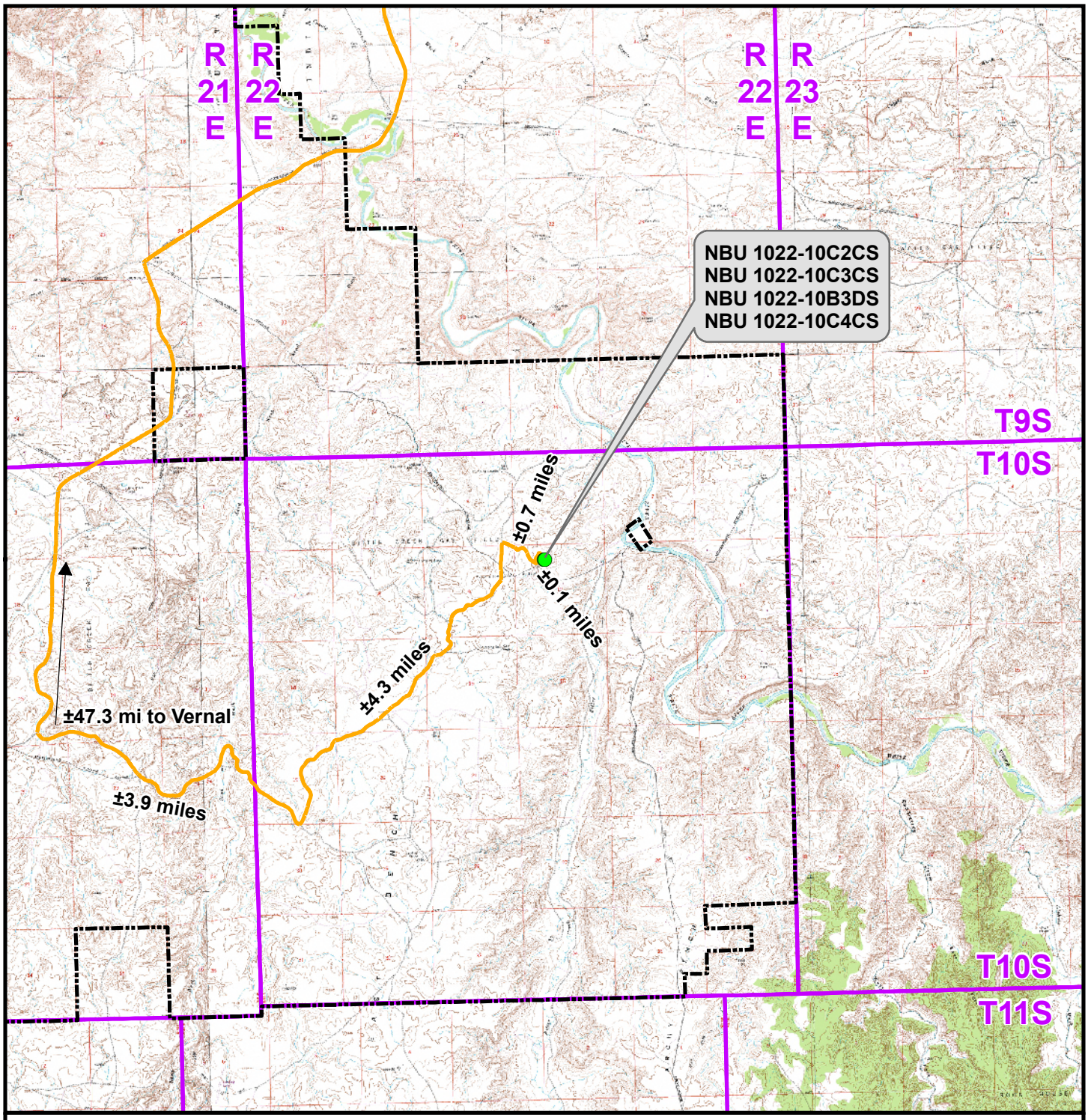
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 6-4-12	PHOTOS TAKEN BY: A.F.	SHEET NO: 9
DATE DRAWN: 6-7-12	DRAWN BY: M.W.W.	9 OF 16
Date Last Revised:		

RECEIVED: July 19, 2012

API Well Number: 43047529960000



Legend

Distance From Well Pad - NBU 1022-10C To Unit Boundary: ±5,045ft

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

WELL PAD - NBU 1022-10C

TOPO A
NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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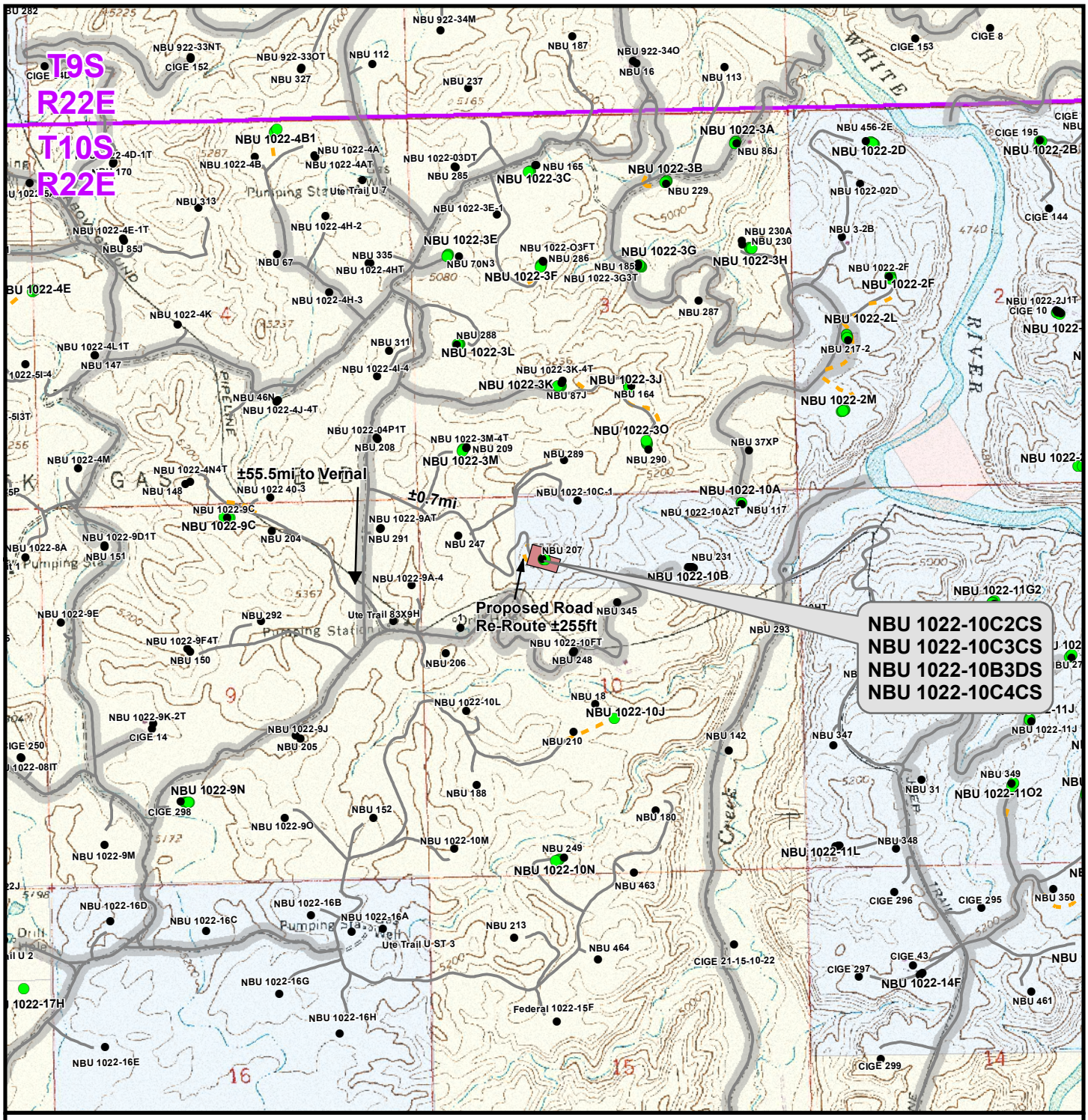
Fax 307-674-0182

N

SCALE: 1:100,000	NAD83 USP Central	SHEET NO: 10
DRAWN: TL	DATE: 12 June 2012	10 OF 16
REVISED:	DATE:	

RECEIVED: July 19, 2012

API Well Number: 43047529960000



Legend

Total Proposed Road Re-Route Length: ±255ft

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-10C

TOPO B
NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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Denver, Colorado 80202

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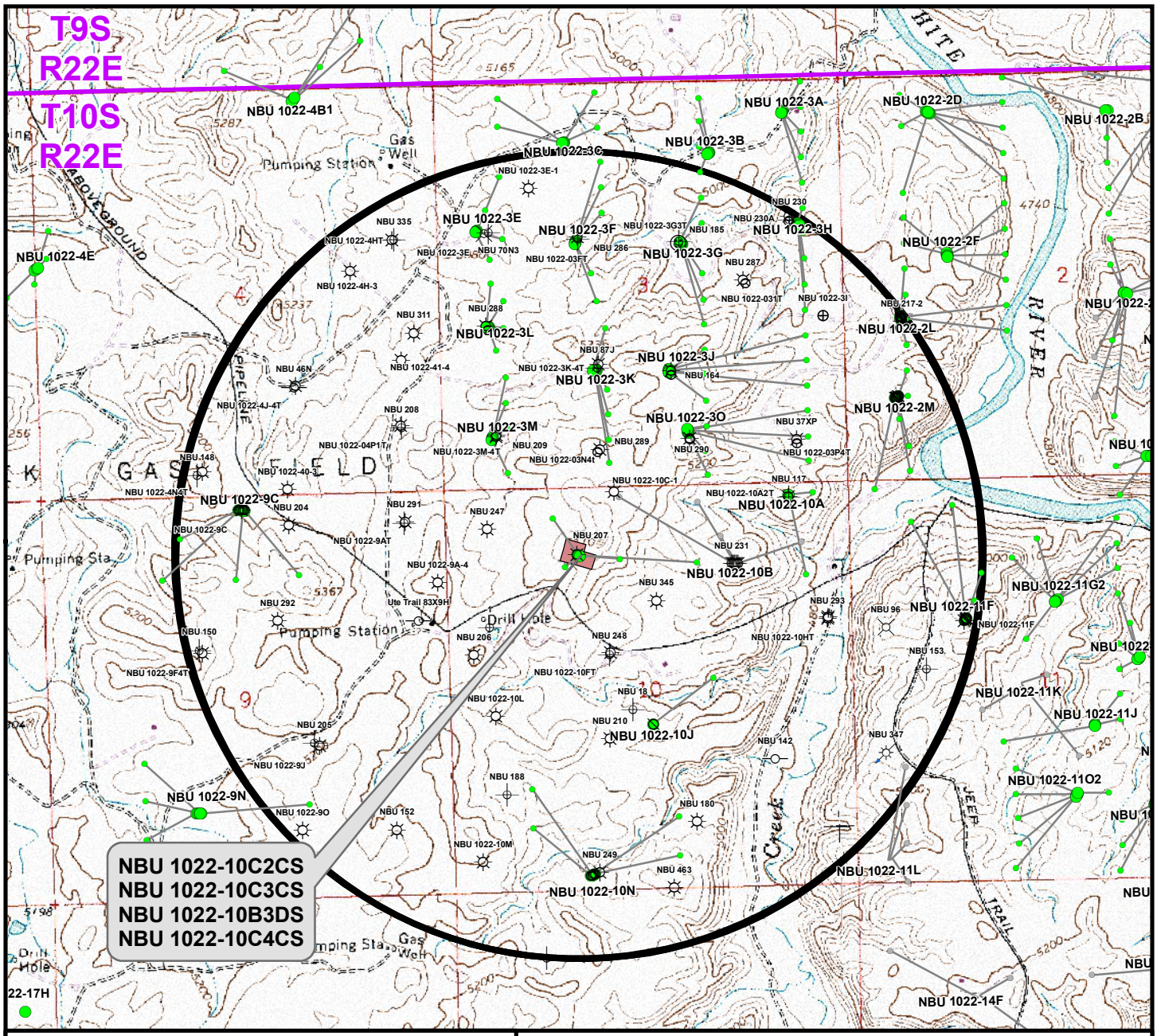
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 11
DRAWN: TL	DATE: 12 June 2012	11 OF 16
REVISED:	DATE:	

RECEIVED: July 19, 2012



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 1022-10C2CS	NBU 207	572ft
NBU 1022-10C3CS	NBU 207	227ft
NBU 1022-10B3DS	NBU 231	448ft
NBU 1022-10C4CS	NBU 207	569ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 1022-10C

TOPO C
NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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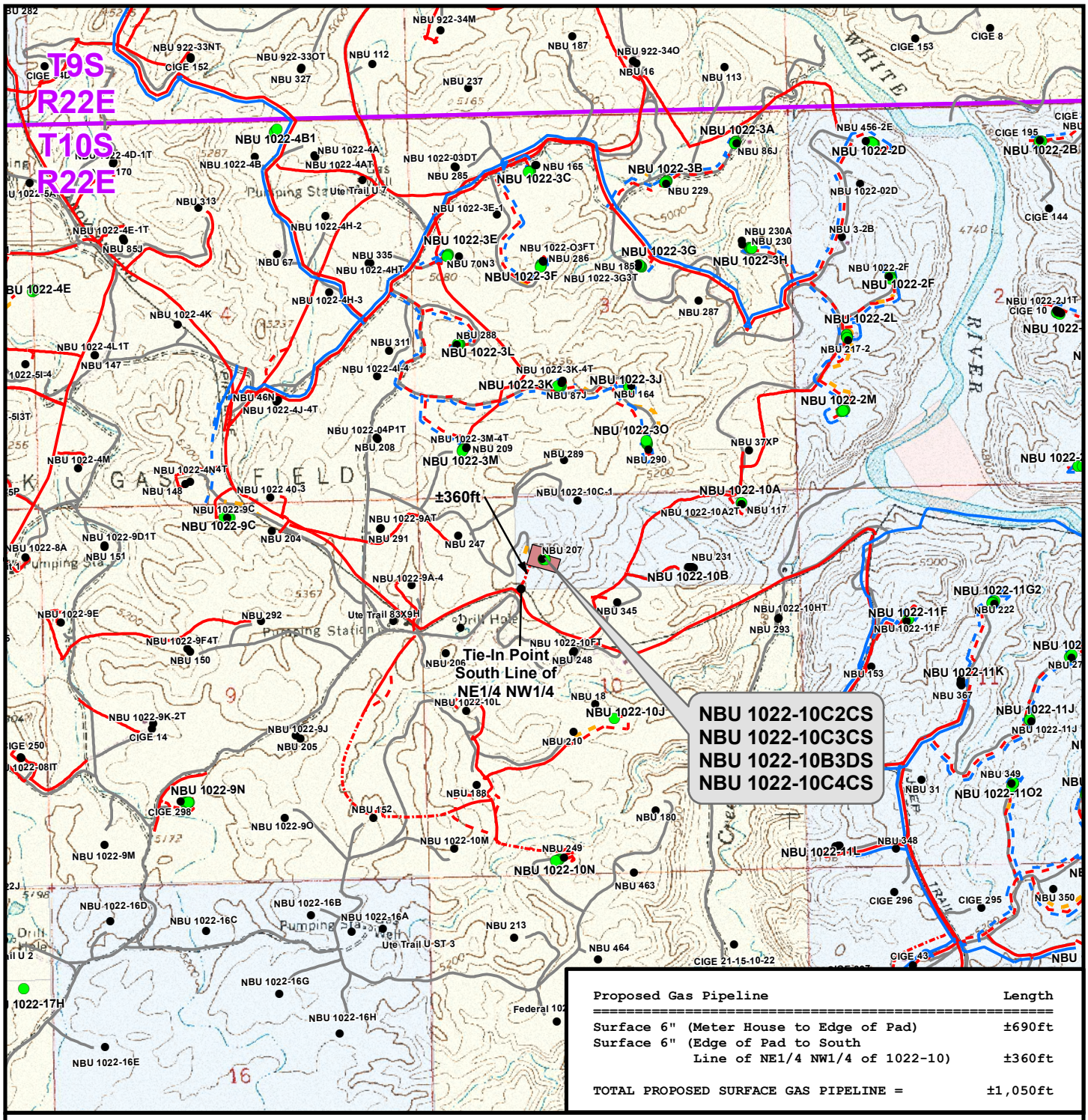
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 12
DRAWN: TL	DATE: 12 June 2012	12 OF 16
REVISED:	DATE:	

RECEIVED: July 19, 2012

API Well Number: 43047529960000



Proposed Gas Pipeline	Length
Surface 6" (Meter House to Edge of Pad)	±690ft
Surface 6" (Edge of Pad to South Line of NE1/4 NW1/4 of 1022-10)	±360ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±1,050ft

Legend

Well - Proposed; Well - Existing; Well Pad; Gas Pipeline - Proposed; Gas Pipeline - To Be Upgraded; Gas Pipeline - Existing; Liquid Pipeline - Proposed; Liquid Pipeline - Existing; Road - Proposed; Road - Existing; Bureau of Land Management; Indian Reservation; State; Private

WELL PAD - NBU 1022-10C

TOPO D
NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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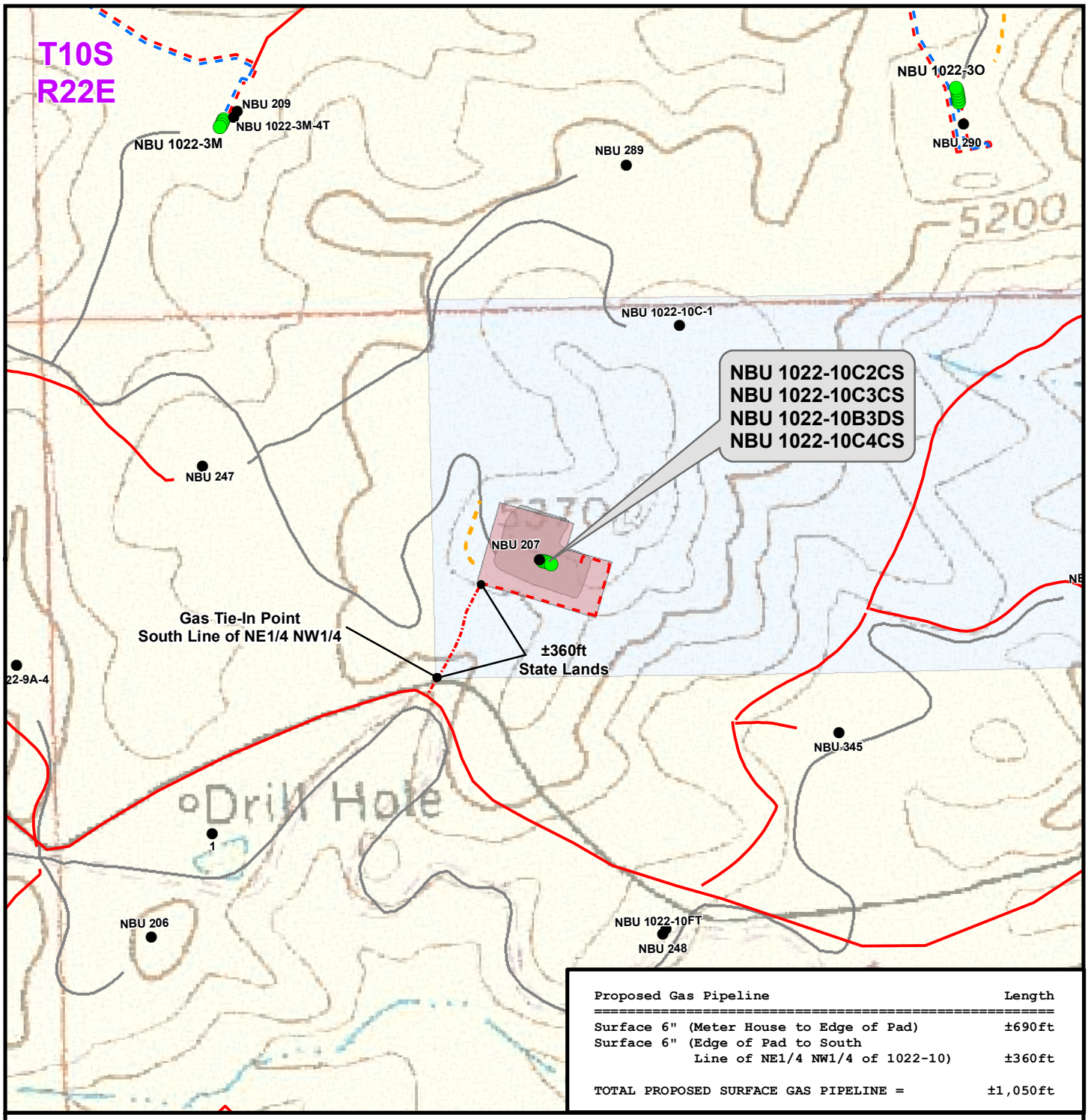
N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 13	
DRAWN: TL	DATE: 12 June 2012	13 OF 16	
REVISED:	DATE:		

RECEIVED: July 19, 2012

API Well Number: 43047529960000



Proposed Gas Pipeline	Length
Surface 6" (Meter House to Edge of Pad)	±690ft
Surface 6" (Edge of Pad to South Line of NE1/4 NW1/4 of 1022-10)	±360ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±1,050ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad - Proposed
- Well Pad - Existing
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-10C

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-10C2CS, NBU 1022-10C3CS,
NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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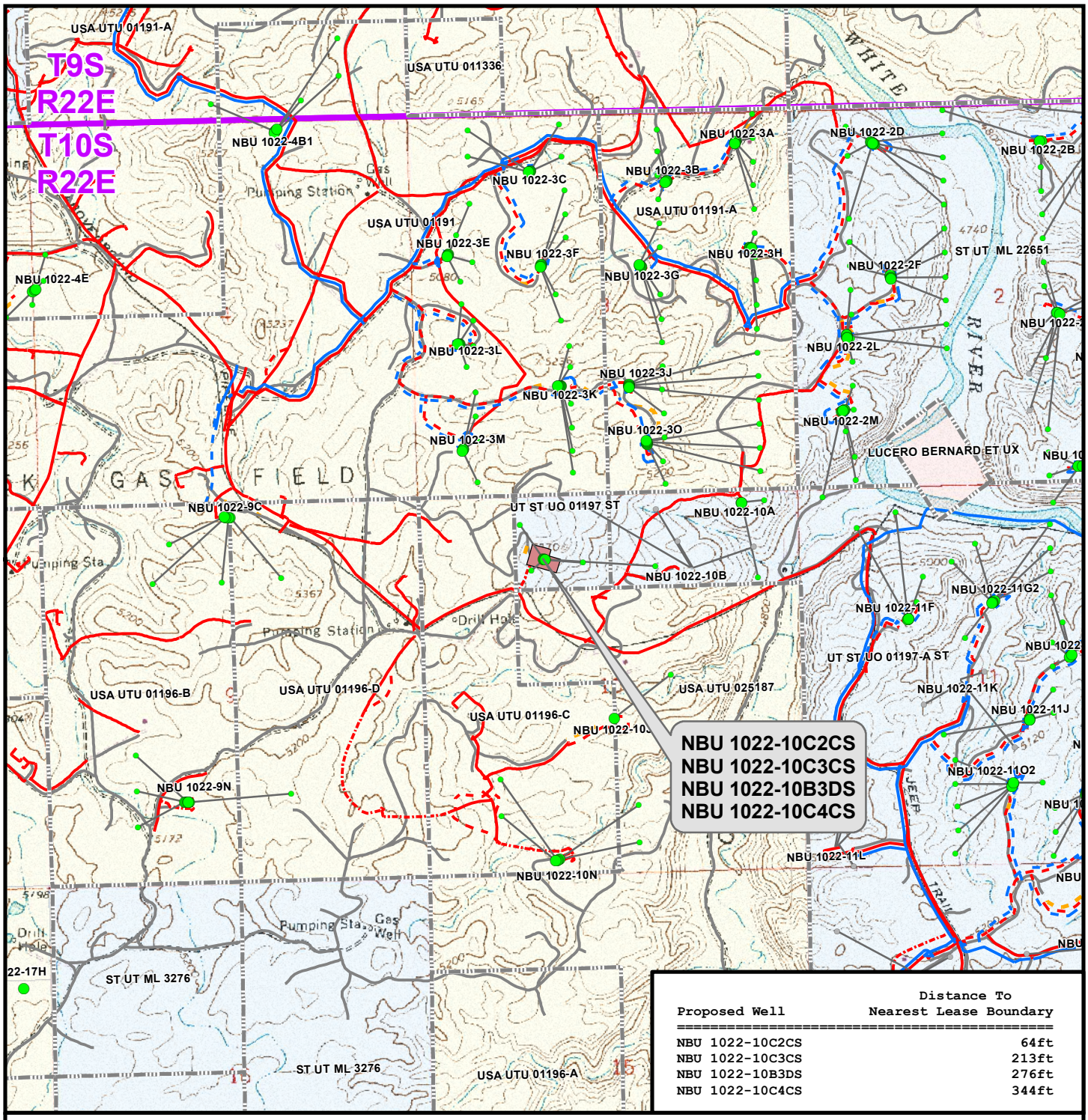
N

SCALE: 1" = 500ft	NAD83 USP Central	SHEET NO: 14
DRAWN: TL	DATE: 12 June 2012	14 OF 16
REVISED:	DATE:	

RECEIVED: July 19, 2012

API Well Number: 43047529960000



Proposed Well	Distance To Nearest Lease Boundary
NBU 1022-10C2CS	64ft
NBU 1022-10C3CS	213ft
NBU 1022-10B3DS	276ft
NBU 1022-10C4CS	344ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

WELL PAD - NBU 1022-10C

TOPO E
NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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Denver, Colorado 80202

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Sheridan, Wyoming 82801
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Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 15
DRAWN: TL	DATE: 12 June 2012	15 OF 16
REVISED:	DATE:	

RECEIVED: July 19, 2012

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 1022-10C
WELLS – NBU 1022-10C2CS, NBU 1022-10C3CS,
NBU 1022-10B3DS & NBU 1022-10C4CS
Section 10, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 3.9 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 4.3 miles to a service road to the southeast. Exit right and proceed in a southeasterly direction along the service road approximately 0.7 miles to the proposed access road to the southwest. Follow road flags in a southwesterly, then southeasterly direction approximately 255 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 56.3 miles in a southerly direction.

RECEIVED: July 19, 2012

API Well Number: 43047520960000

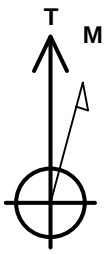
Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10C PAD
Well: NBU 1022-10B3DS
Wellbore: OH
Design: PLAN #1 PERMIT

Anadarko Petroleum Corporation

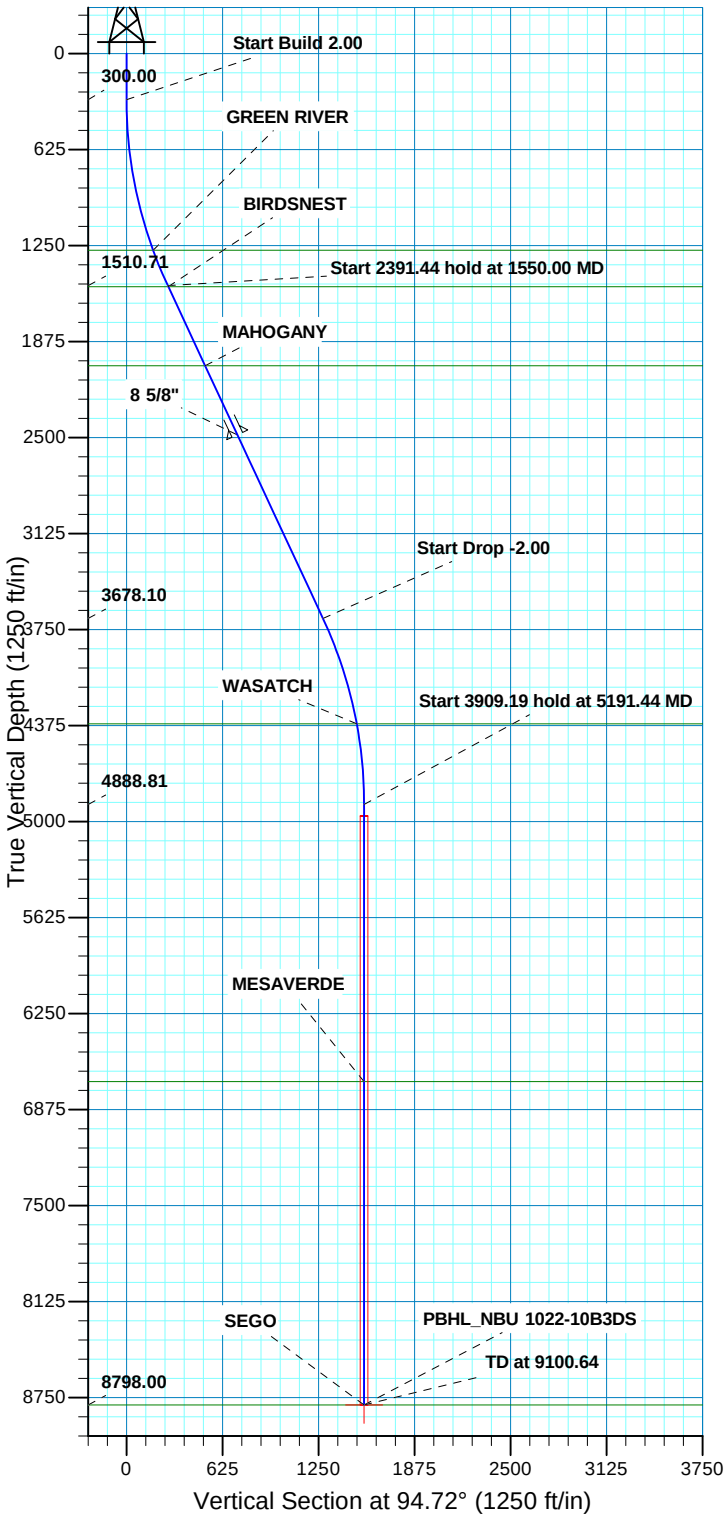
WELL DETAILS: NBU 1022-10B3DS					
GL 5303 & KB 4 @ 5307.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14518359.02	2080721.99	39.968241	-109.428571

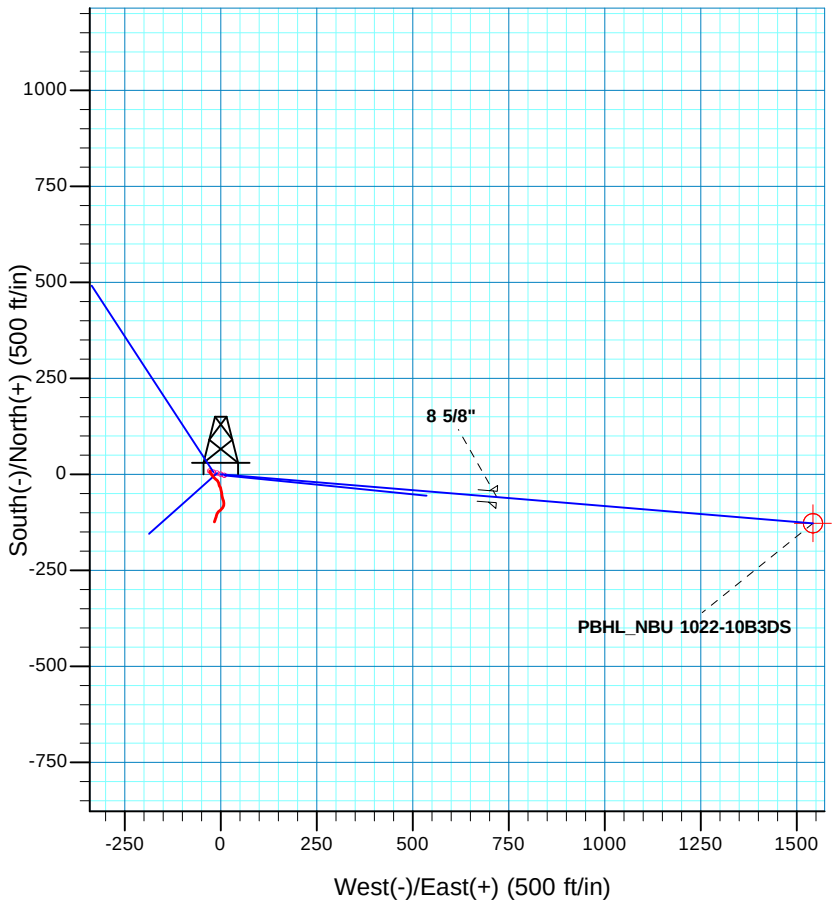
DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8798.00	-127.43	1542.23	14518258.79	2082266.22	39.967891	-109.423068	Circle (Radius: 25.00)
- plan hits target center								



Azimuths to True North
Magnetic North: 10.90°

Magnetic Field
Strength: 52212.9snT
Dip Angle: 65.83°
Date: 07/09/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1550.00	25.00	94.72	1510.71	-22.10	267.50	2.00	94.72	268.41	
3941.44	25.00	94.72	3678.10	-105.33	1274.73	0.00	0.00	1279.08	
5191.44	0.00	0.00	4888.81	-127.43	1542.23	2.00	180.00	1547.48	
9100.64	0.00	0.00	8798.00	-127.43	1542.23	0.00	0.00	1547.48	PBHL_NBU 1022-10B3DS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 10 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1280.00	1300.20	GREEN RIVER
1518.00	1558.04	BIRDSNEST
2033.00	2126.28	MAHOGANY
4364.00	4663.65	WASATCH
6693.00	6995.64	MESAVERDE
8797.99	9100.63	SEGO

CASING DETAILS

TVD	MD	Name	Size
2483.00	2622.80	8 5/8"	8.625

Plan: PLAN #1 PERMIT (NBU 1022-10B3DS/OH)

Created By: Gabe Kendall Date: 9:14, July 09 2012

RECEIV

API Well Number: 43047529960000

Scientific Drilling

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
NBU 1022-10C PAD
NBU 1022-10B3DS

OH

Plan: PLAN #1 PERMIT

Standard Planning Report

09 July, 2012

Anadarko Petroleum Corporation

RECEIVED: July 19, 2012

Scientific Drilling

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well NBU 1022-10B3DS
Company:	US ROCKIES REGION PLANNING	**TVD Reference:**	GL 5303 & KB 4 @ 5307.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**MD Reference:**	GL 5303 & KB 4 @ 5307.00ft (ASSUMED)
Site:	NBU 1022-10C PAD	**North Reference:**	True
Well:	NBU 1022-10B3DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 1022-10C PAD, SECTION 10 T10S R22E

Site Position:		**Northing:**	14,518,364.52 usft	**Latitude:**	39.968257
From:	Lat/Long	**Easting:**	2,080,702.83 usft	**Longitude:**	-109.428639
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	1.01 °

Well NBU 1022-10B3DS, 822 FNL 1715 FWL

Well Position	**+N/-S**	-5.83 ft	**Northing:**	14,518,359.03 usft	**Latitude:**	39.968241
	+E/-W	19.06 ft	**Easting:**	2,080,721.98 usft	**Longitude:**	-109.428571
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	5,303.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/09/12	10.90	65.83	52,213

Design PLAN #1 PERMIT

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	94.72

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,550.00	25.00	94.72	1,510.71	-22.10	267.50	2.00	2.00	0.00	94.72	
3,941.44	25.00	94.72	3,678.10	-105.33	1,274.73	0.00	0.00	0.00	0.00	
5,191.44	0.00	0.00	4,888.81	-127.43	1,542.23	2.00	-2.00	0.00	180.00	
9,100.64	0.00	0.00	8,798.00	-127.43	1,542.23	0.00	0.00	0.00	0.00	PBHL_NBU 1022-10E

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Site:	NBU 1022-10C PAD	**North Reference:**	True
Well:	NBU 1022-10B3DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	94.72	399.98	-0.14	1.74	1.75	2.00	2.00	0.00
500.00	4.00	94.72	499.84	-0.57	6.95	6.98	2.00	2.00	0.00
600.00	6.00	94.72	599.45	-1.29	15.64	15.69	2.00	2.00	0.00
700.00	8.00	94.72	698.70	-2.30	27.79	27.88	2.00	2.00	0.00
800.00	10.00	94.72	797.47	-3.58	43.37	43.52	2.00	2.00	0.00
900.00	12.00	94.72	895.62	-5.16	62.39	62.60	2.00	2.00	0.00
1,000.00	14.00	94.72	993.06	-7.01	84.81	85.10	2.00	2.00	0.00
1,100.00	16.00	94.72	1,089.64	-9.14	110.60	110.98	2.00	2.00	0.00
1,200.00	18.00	94.72	1,185.27	-11.55	139.74	140.21	2.00	2.00	0.00
1,300.00	20.00	94.72	1,279.82	-14.23	172.18	172.77	2.00	2.00	0.00
1,300.20	20.00	94.72	1,280.00	-14.23	172.25	172.84	0.00	0.00	0.00
GREEN RIVER									
1,400.00	22.00	94.72	1,373.17	-17.18	207.89	208.60	2.00	2.00	0.00
1,500.00	24.00	94.72	1,465.21	-20.39	246.83	247.67	2.00	2.00	0.00
1,550.00	25.00	94.72	1,510.71	-22.10	267.50	268.41	2.00	2.00	0.00
Start 2391.44 hold at 1550.00 MD									
1,558.04	25.00	94.72	1,518.00	-22.38	270.88	271.81	0.00	0.00	0.00
BIRDSNEST									
1,600.00	25.00	94.72	1,556.03	-23.84	288.56	289.54	0.00	0.00	0.00
1,700.00	25.00	94.72	1,646.66	-27.32	330.67	331.80	0.00	0.00	0.00
1,800.00	25.00	94.72	1,737.29	-30.80	372.79	374.06	0.00	0.00	0.00
1,900.00	25.00	94.72	1,827.92	-34.28	414.91	416.32	0.00	0.00	0.00
2,000.00	25.00	94.72	1,918.55	-37.76	457.03	458.59	0.00	0.00	0.00
2,100.00	25.00	94.72	2,009.18	-41.24	499.15	500.85	0.00	0.00	0.00
2,126.28	25.00	94.72	2,033.00	-42.16	510.22	511.96	0.00	0.00	0.00
MAHOGANY									
2,200.00	25.00	94.72	2,099.81	-44.72	541.27	543.11	0.00	0.00	0.00
2,300.00	25.00	94.72	2,190.44	-48.20	583.38	585.37	0.00	0.00	0.00
2,400.00	25.00	94.72	2,281.07	-51.68	625.50	627.63	0.00	0.00	0.00
2,500.00	25.00	94.72	2,371.70	-55.16	667.62	669.90	0.00	0.00	0.00
2,600.00	25.00	94.72	2,462.34	-58.64	709.74	712.16	0.00	0.00	0.00
2,622.80	25.00	94.72	2,483.00	-59.44	719.34	721.79	0.00	0.00	0.00
8 5/8"									
2,700.00	25.00	94.72	2,552.97	-62.12	751.86	754.42	0.00	0.00	0.00
2,800.00	25.00	94.72	2,643.60	-65.60	793.98	796.68	0.00	0.00	0.00
2,900.00	25.00	94.72	2,734.23	-69.08	836.09	838.94	0.00	0.00	0.00
3,000.00	25.00	94.72	2,824.86	-72.56	878.21	881.20	0.00	0.00	0.00
3,100.00	25.00	94.72	2,915.49	-76.04	920.33	923.47	0.00	0.00	0.00
3,200.00	25.00	94.72	3,006.12	-79.52	962.45	965.73	0.00	0.00	0.00
3,300.00	25.00	94.72	3,096.75	-83.00	1,004.57	1,007.99	0.00	0.00	0.00
3,400.00	25.00	94.72	3,187.38	-86.48	1,046.69	1,050.25	0.00	0.00	0.00
3,500.00	25.00	94.72	3,278.01	-89.96	1,088.80	1,092.51	0.00	0.00	0.00
3,600.00	25.00	94.72	3,368.64	-93.44	1,130.92	1,134.78	0.00	0.00	0.00
3,700.00	25.00	94.72	3,459.27	-96.92	1,173.04	1,177.04	0.00	0.00	0.00
3,800.00	25.00	94.72	3,549.90	-100.40	1,215.16	1,219.30	0.00	0.00	0.00
3,900.00	25.00	94.72	3,640.54	-103.88	1,257.28	1,261.56	0.00	0.00	0.00
3,941.44	25.00	94.72	3,678.10	-105.33	1,274.73	1,279.08	0.00	0.00	0.00
Start Drop -2.00									

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Site:	NBU 1022-10C PAD	**North Reference:**	True
Well:	NBU 1022-10B3DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.00	23.83	94.72	3,731.42	-107.32	1,298.85	1,303.28	2.00	-2.00	0.00
4,100.00	21.83	94.72	3,823.58	-110.51	1,337.52	1,342.08	2.00	-2.00	0.00
4,200.00	19.83	94.72	3,917.04	-113.44	1,372.95	1,377.63	2.00	-2.00	0.00
4,300.00	17.83	94.72	4,011.68	-116.10	1,405.12	1,409.90	2.00	-2.00	0.00
4,400.00	15.83	94.72	4,107.39	-118.48	1,433.97	1,438.85	2.00	-2.00	0.00
4,500.00	13.83	94.72	4,204.06	-120.59	1,459.47	1,464.45	2.00	-2.00	0.00
4,600.00	11.83	94.72	4,301.56	-122.42	1,481.60	1,486.65	2.00	-2.00	0.00
4,663.65	10.56	94.72	4,364.00	-123.44	1,493.91	1,499.00	2.00	-2.00	0.00
WASATCH									
4,700.00	9.83	94.72	4,399.77	-123.97	1,500.32	1,505.43	2.00	-2.00	0.00
4,800.00	7.83	94.72	4,498.58	-125.23	1,515.62	1,520.78	2.00	-2.00	0.00
4,900.00	5.83	94.72	4,597.87	-126.21	1,527.47	1,532.67	2.00	-2.00	0.00
5,000.00	3.83	94.72	4,697.51	-126.90	1,535.86	1,541.09	2.00	-2.00	0.00
5,100.00	1.83	94.72	4,797.38	-127.31	1,540.77	1,546.02	2.00	-2.00	0.00
5,191.44	0.00	0.00	4,888.81	-127.43	1,542.23	1,547.48	2.00	-2.00	0.00
Start 3909.19 hold at 5191.44 MD									
5,200.00	0.00	0.00	4,897.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
5,300.00	0.00	0.00	4,997.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
5,400.00	0.00	0.00	5,097.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
5,500.00	0.00	0.00	5,197.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
5,600.00	0.00	0.00	5,297.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
5,700.00	0.00	0.00	5,397.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
5,800.00	0.00	0.00	5,497.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
5,900.00	0.00	0.00	5,597.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,000.00	0.00	0.00	5,697.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,100.00	0.00	0.00	5,797.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,200.00	0.00	0.00	5,897.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,300.00	0.00	0.00	5,997.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,400.00	0.00	0.00	6,097.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,500.00	0.00	0.00	6,197.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,600.00	0.00	0.00	6,297.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,700.00	0.00	0.00	6,397.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,800.00	0.00	0.00	6,497.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,900.00	0.00	0.00	6,597.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
6,995.64	0.00	0.00	6,693.00	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
MESAVERDE									
7,000.00	0.00	0.00	6,697.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,100.00	0.00	0.00	6,797.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,200.00	0.00	0.00	6,897.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,300.00	0.00	0.00	6,997.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,400.00	0.00	0.00	7,097.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,500.00	0.00	0.00	7,197.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,600.00	0.00	0.00	7,297.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,700.00	0.00	0.00	7,397.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,800.00	0.00	0.00	7,497.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
7,900.00	0.00	0.00	7,597.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,000.00	0.00	0.00	7,697.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,100.00	0.00	0.00	7,797.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,200.00	0.00	0.00	7,897.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,300.00	0.00	0.00	7,997.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,400.00	0.00	0.00	8,097.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,500.00	0.00	0.00	8,197.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,600.00	0.00	0.00	8,297.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00

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Site:	NBU 1022-10C PAD	**North Reference:**	True
Well:	NBU 1022-10B3DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PERMIT		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,700.00	0.00	0.00	8,397.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,800.00	0.00	0.00	8,497.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
8,900.00	0.00	0.00	8,597.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
9,000.00	0.00	0.00	8,697.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
9,100.00	0.00	0.00	8,797.36	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
9,100.63	0.00	0.00	8,797.99	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
SEGO									
9,100.64	0.00	0.00	8,798.00	-127.43	1,542.23	1,547.48	0.00	0.00	0.00
TD at 9100.64 - PBHL_NBU 1022-10B3DS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-10B3[	0.00	0.00	8,798.00	-127.43	1,542.23	14,518,258.79	2,082,266.21	39.967891	-109.423068
- plan hits target center - Circle (radius 25.00)									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,622.80	2,483.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,300.20	1,280.00	GREEN RIVER			
1,558.04	1,518.00	BIRDSNEST			
2,126.28	2,033.00	MAHOGANY			
4,663.65	4,364.00	WASATCH			
6,995.64	6,693.00	MESAVERDE			
9,100.63	8,797.99	SEGO		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,550.00	1,510.71	-22.10	267.50	Start 2391.44 hold at 1550.00 MD
3,941.44	3,678.10	-105.33	1,274.73	Start Drop -2.00
5,191.44	4,888.81	-127.43	1,542.23	Start 3909.19 hold at 5191.44 MD
9,100.64	8,798.00	-127.43	1,542.23	TD at 9100.64

	NBU 1022-10B3DS		
Surface:	922 FNL / 1715 FWL	NENW	Lot
BHL:	1038 FNL / 1990 FEL	NWNE	Lot
	NBU 1022-10C2CS		
Surface:	916 FNL / 1695 FWL	NENW	Lot
BHL:	435 FNL / 1379 FWL	NENW	Lot
	NBU 1022-10C3CS		
Surface:	919 FNL / 1705 FWL	NENW	Lot
BHL:	1079 FNL / 1528 FWL	NENW	Lot
	NBU 1022-10C4CS		
Surface:	924 FNL / 1724 FWL	NENW	Lot
BHL:	970 FNL / 2251 FWL	NENW	Lot

Pad: NBU 1022-10C PAD
Section 10 T10S R22E
Mineral Lease: UO 01197

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

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B. Planned Access Roads:

Approximately ±255' (0.05 miles) of road re-route is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the NBU 207, which is a producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of July 18, 2012.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ±1,050' and the individual segments are broken up as follows:

±690' (0.1 miles) –New 6" surface gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
±360' (0.07 miles) –New 6" surface gas pipeline from the edge of the pad to the South Line of NE/4 NW/4 of 1022-10. Please refer to Topo D2 - Pad and Pipeline Detail.

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Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

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RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

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For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs “Reporting Oil and Gas Undesirable Events” rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

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H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/ completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

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After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

L. Other Information:

None

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M. Lessee's or Operators' Representative & Certification:

Danielle Piernot
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

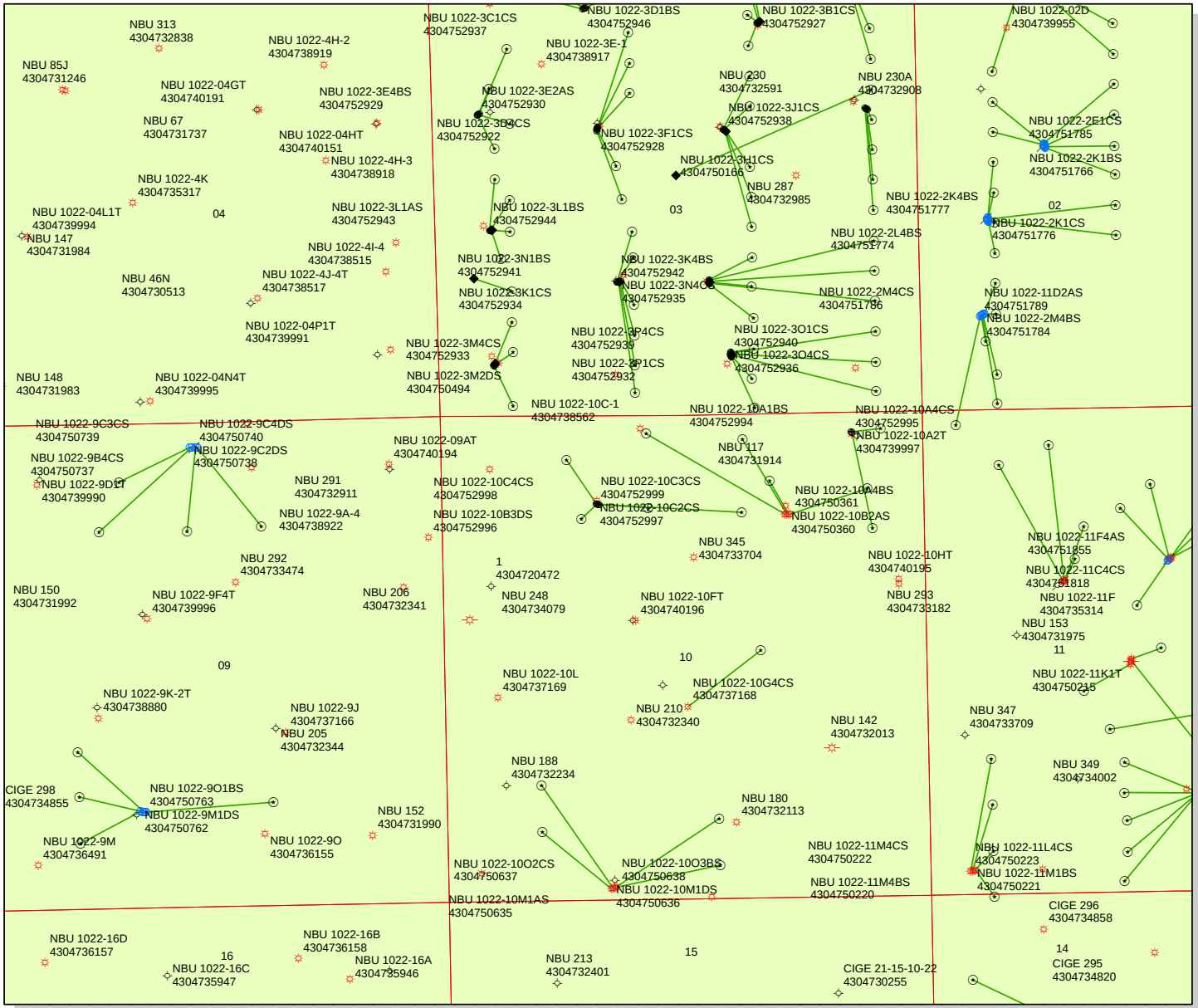
Danielle Piernot

Danielle Piernot

July 18, 2012

Date

API Well Number: 43047529960000



API Number: 4304752996

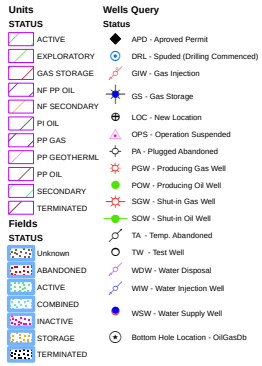
Well Name: NBU 1022-10B3DS

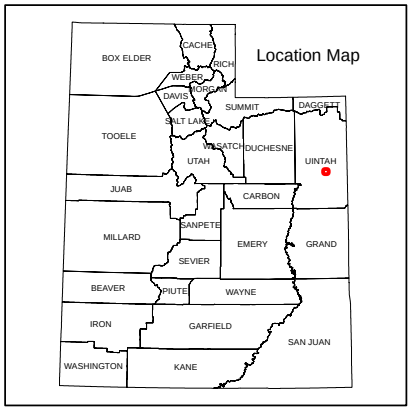
Township T10.0S Range R22.0E Section 10

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason





RECEIVED: July 20, 2012

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

July 30, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION

(Proposed PZ WASATCH-MESA VERDE)

WELL PAD - NBU 1022-10A

43-047-52994 NBU 1022-10A1BS Sec 10 T10S R22E 0182 FNL 0780 FEL
BHL Sec 10 T10S R22E 0155 FNL 0460 FEL

43-047-52995 NBU 1022-10A4CS Sec 10 T10S R22E 0190 FNL 0775 FEL
BHL Sec 10 T10S R22E 1235 FNL 0570 FEL

WELL PAD - NBU 920-14D

43-047-52951 NBU 920-14E1BS Sec 14 T09S R20E 0603 FNL 0623 FWL
BHL Sec 14 T09S R20E 1592 FNL 0710 FWL

43-047-52952 NBU 920-14F2DS Sec 14 T09S R20E 0593 FNL 0620 FWL
BHL Sec 14 T09S R20E 1924 FNL 1806 FWL

43-047-52953 NBU 920-14C3DS Sec 14 T09S R20E 0584 FNL 0617 FWL
BHL Sec 14 T09S R20E 1041 FNL 1827 FWL

WELL PAD - NBU 1022-10C

43-047-52996 NBU 1022-10B3DS Sec 10 T10S R22E 0922 FNL 1715 FWL
BHL Sec 10 T10S R22E 1038 FNL 1990 FEL

43-047-52997 NBU 1022-10C2CS Sec 10 T10S R22E 0916 FNL 1695 FWL
BHL Sec 10 T10S R22E 0435 FNL 1379 FWL

RECEIVED: July 31, 2012

API #	WELL NAME	LOCATION

(Proposed PZ WASATCH-MESA VERDE)

WELL PAD - NBU 1022-10C

43-047-52998 NBU 1022-10C4CS Sec 10 T10S R22E 0924 FNL 1724 FWL
BHL Sec 10 T10S R22E 0970 FNL 2251 FWL

43-047-52999 NBU 1022-10C3CS Sec 10 T10S R22E 0919 FNL 1705 FWL
BHL Sec 10 T10S R22E 1079 FNL 1528 FWL

This office has no objection to permitting the wells at this time.

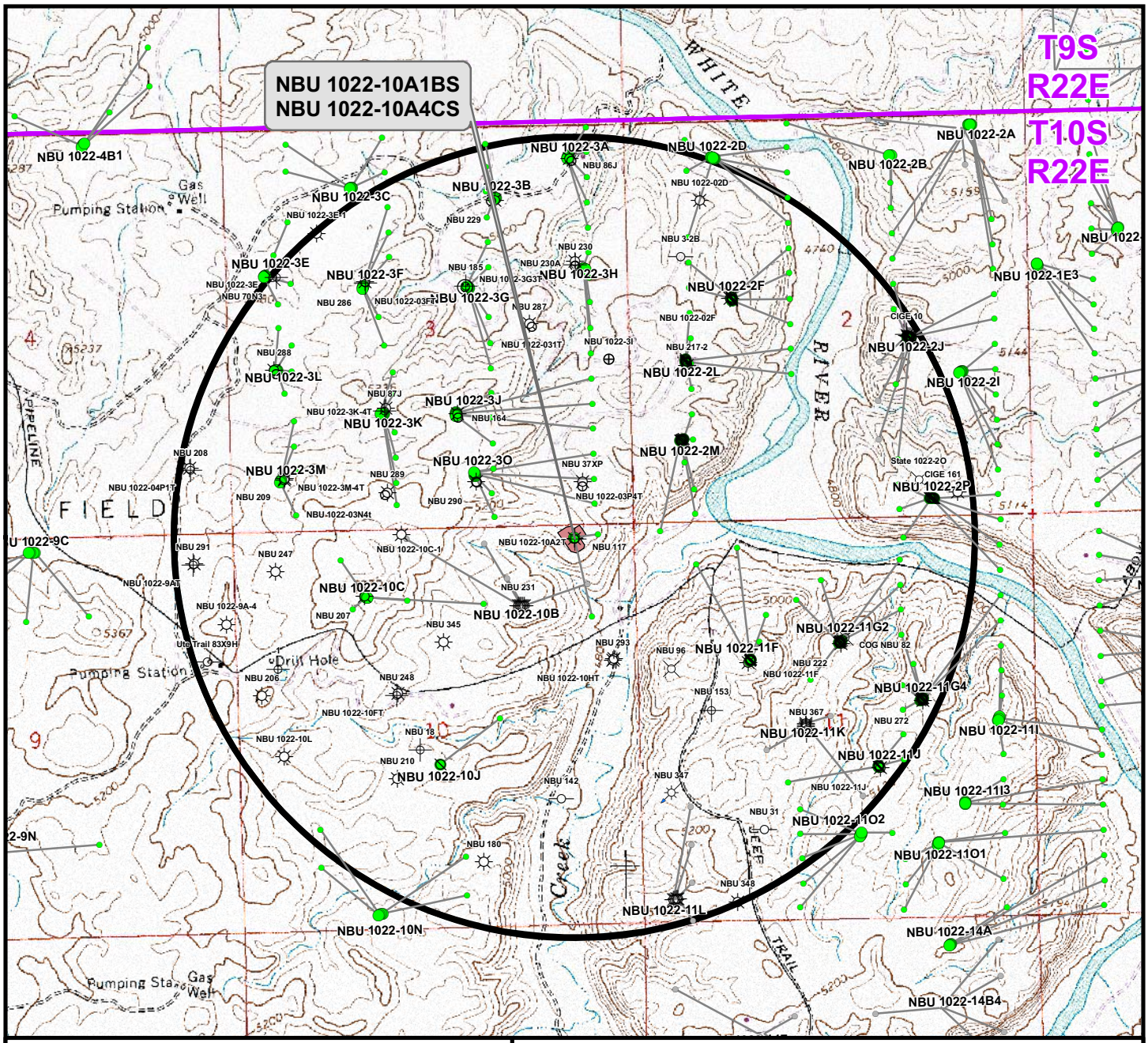
Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2012.07.30 12:47:59 -06'00'

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:7-30-12

RECEIVED: July 31, 2012



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 1022-10A1BS	NBU 117	313ft
NBU 1022-10A4CS	NBU 1022-10A4BS BH	433ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 1022-10A

TOPO C
NBU 1022-10A1BS
& NBU 1022-10A4CS
LOCATED IN SECTION 10, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 10
DRAWN: TL	DATE: 12 June 2012	10 OF 14
REVISED:	DATE:	

Received: July 19, 2012

API Well Number: 43047520960000

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10A PAD
Well: NBU 1022-10A1BS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

WELL DETAILS: NBU 1022-10A1BS

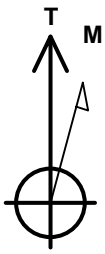
GL 5062 & KB 4 @ 5066.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14519137.40	2083458.71	39.970245	-109.418758

DESIGN TARGET DETAILS

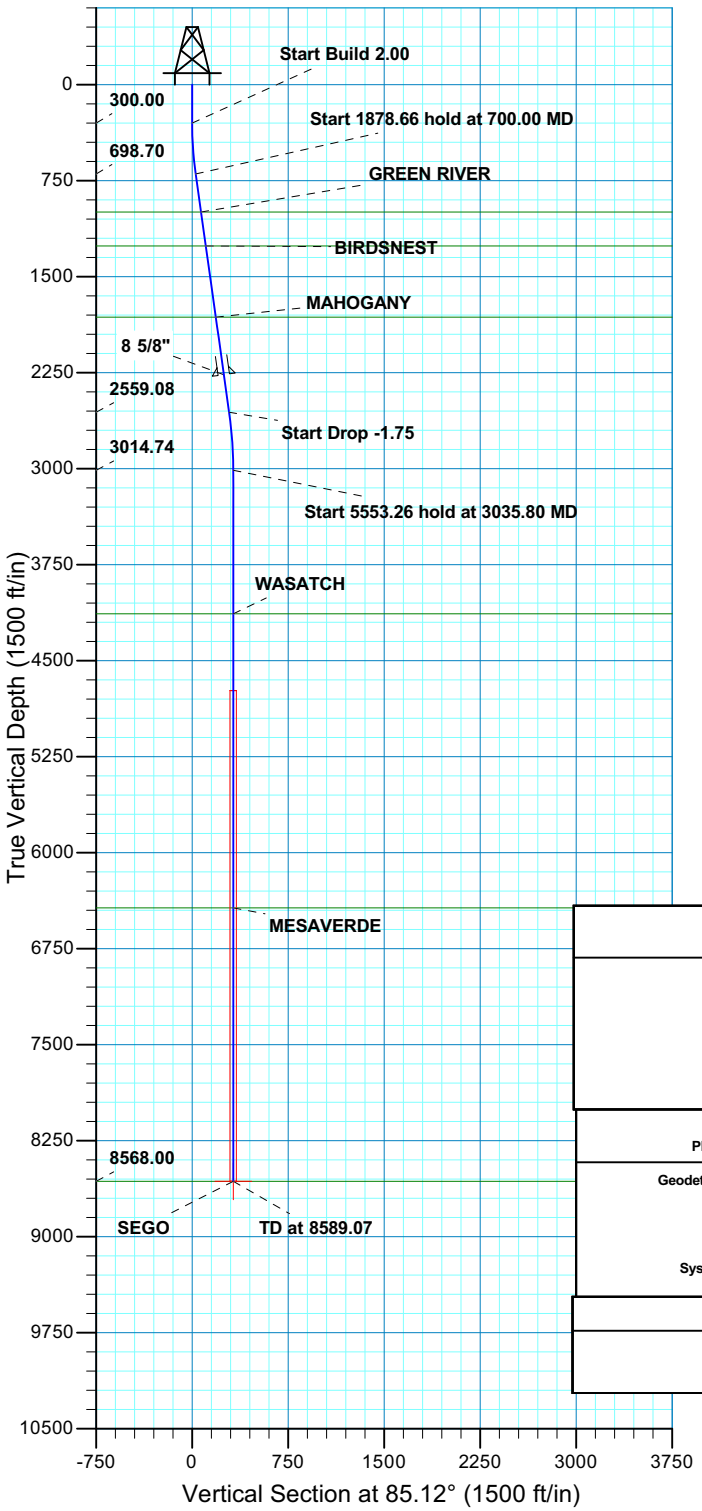
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8568.00	27.32	320.04	14519170.39	2083778.22	39.970320	-109.417616	Circle (Radius: 25.00)

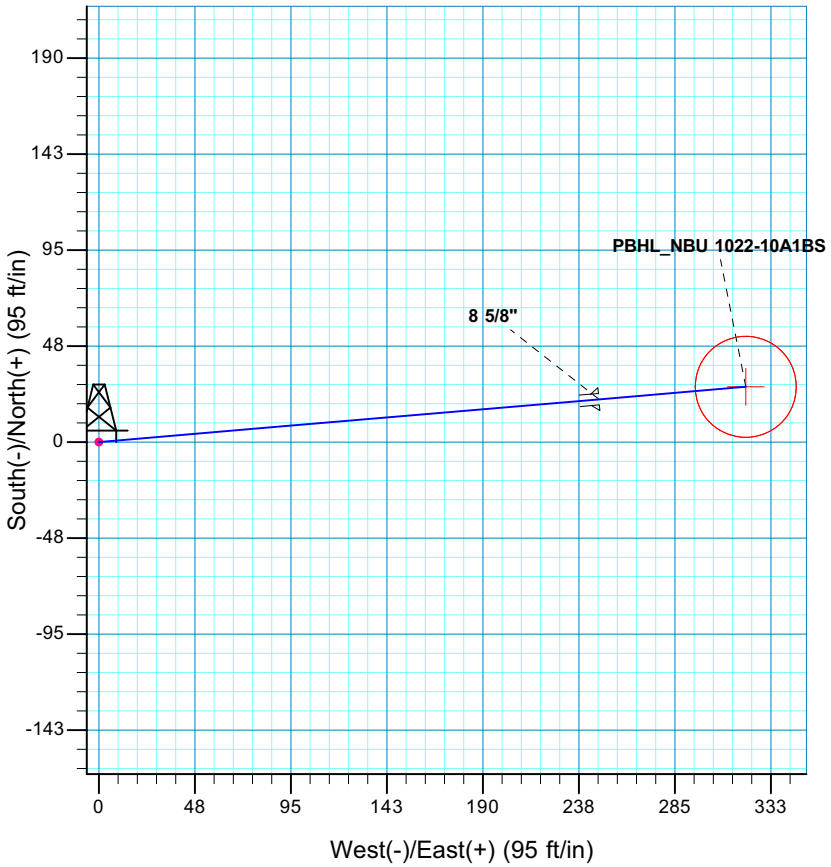
- plan hits target center



Azimuths to True North
Magnetic North: 10.90°

Magnetic Field
Strength: 52217.2snT
Dip Angle: 65.83°
Date: 07/09/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
700.00	8.00	85.12	698.70	2.37	27.78	2.00	85.12	27.88	
2578.66	8.00	85.12	2559.08	24.61	288.29	0.00	0.00	289.34	
3035.80	0.00	0.00	3014.74	27.32	320.04	1.75	180.00	321.20	
8589.07	0.00	0.00	8568.00	27.32	320.04	0.00	0.00	321.20	PBHL_NBU 1022-10A1BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 10 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
997.00	1001.23	GREEN RIVER
1260.00	1266.81	BIRDSNEST
1817.00	1829.29	MAHOGANY
4134.00	4155.07	WASATCH
6432.00	6453.07	MESAVERDE
8568.00	8589.07	SEGO

CASING DETAILS

TVD	MD	Name	Size
2267.00	2283.71	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 1022-10A1BS/OH)
Created By: RobertScott Date: 9:15 am, 09/2012

RECEIVED: July 19, 2012

API Well Number: 43047520960000

Scientific Drilling

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10A PAD
Well: NBU 1022-10A4CS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

WELL DETAILS: NBU 1022-10A4CS

GL 5062 & KB 4 @ 5066.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14519129.12	2083464.47	39.970222	-109.418738

DESIGN TARGET DETAILS

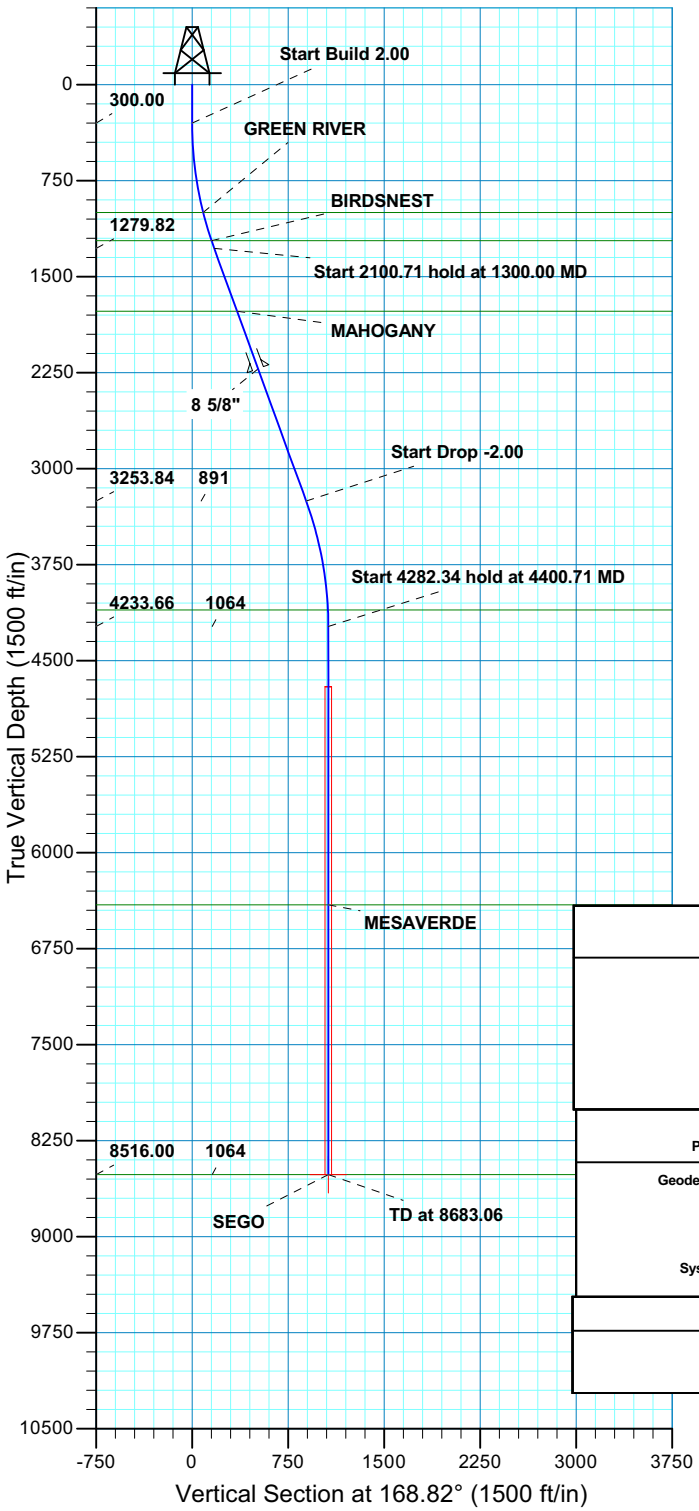
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8516.00	-1043.84	206.27	14518089.11	2083689.21	39.967356	-109.418002	Circle (Radius: 25.00)

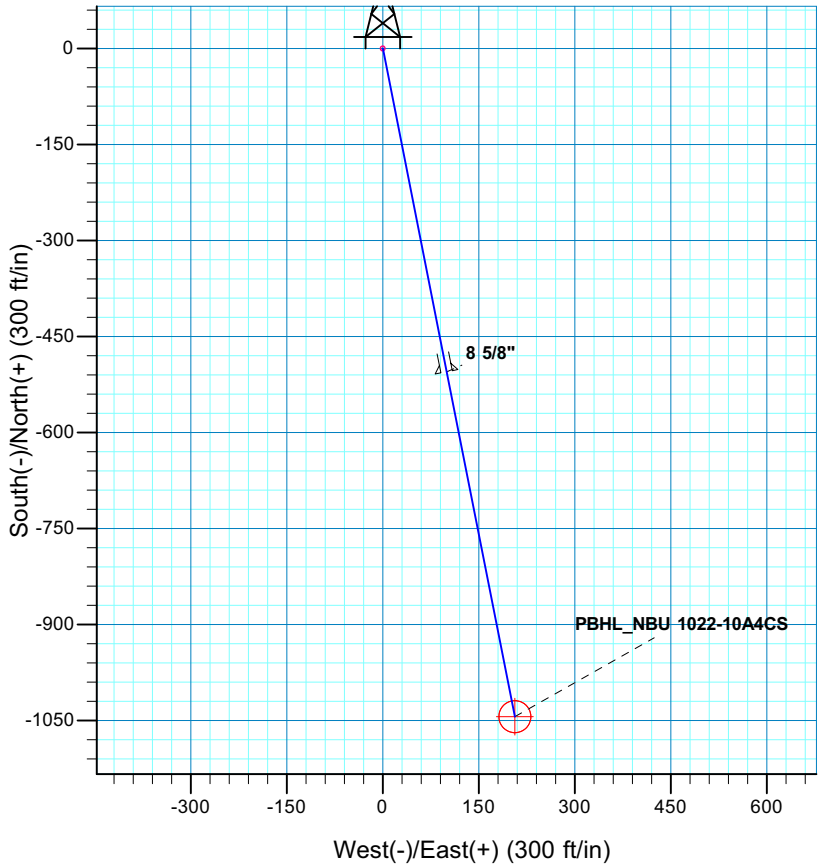
- plan hits target center

T M

Azimuths to True North
Magnetic North: 10.90°

Magnetic Field
Strength: 52217.2snT
Dip Angle: 65.83°
Date: 07/09/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	168.82	1279.82	-169.49	33.49	2.00	168.82	172.77	
3400.71	20.00	168.82	3253.84	-874.35	172.77	0.00	0.00	891.25	
4400.71	0.00	0.00	4233.66	-1043.84	206.27	2.00	180.00	1064.02	
8683.06	0.00	0.00	8516.00	-1043.84	206.27	0.00	0.00	1064.02	PBHL_NBU 1022-10A4CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 10 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

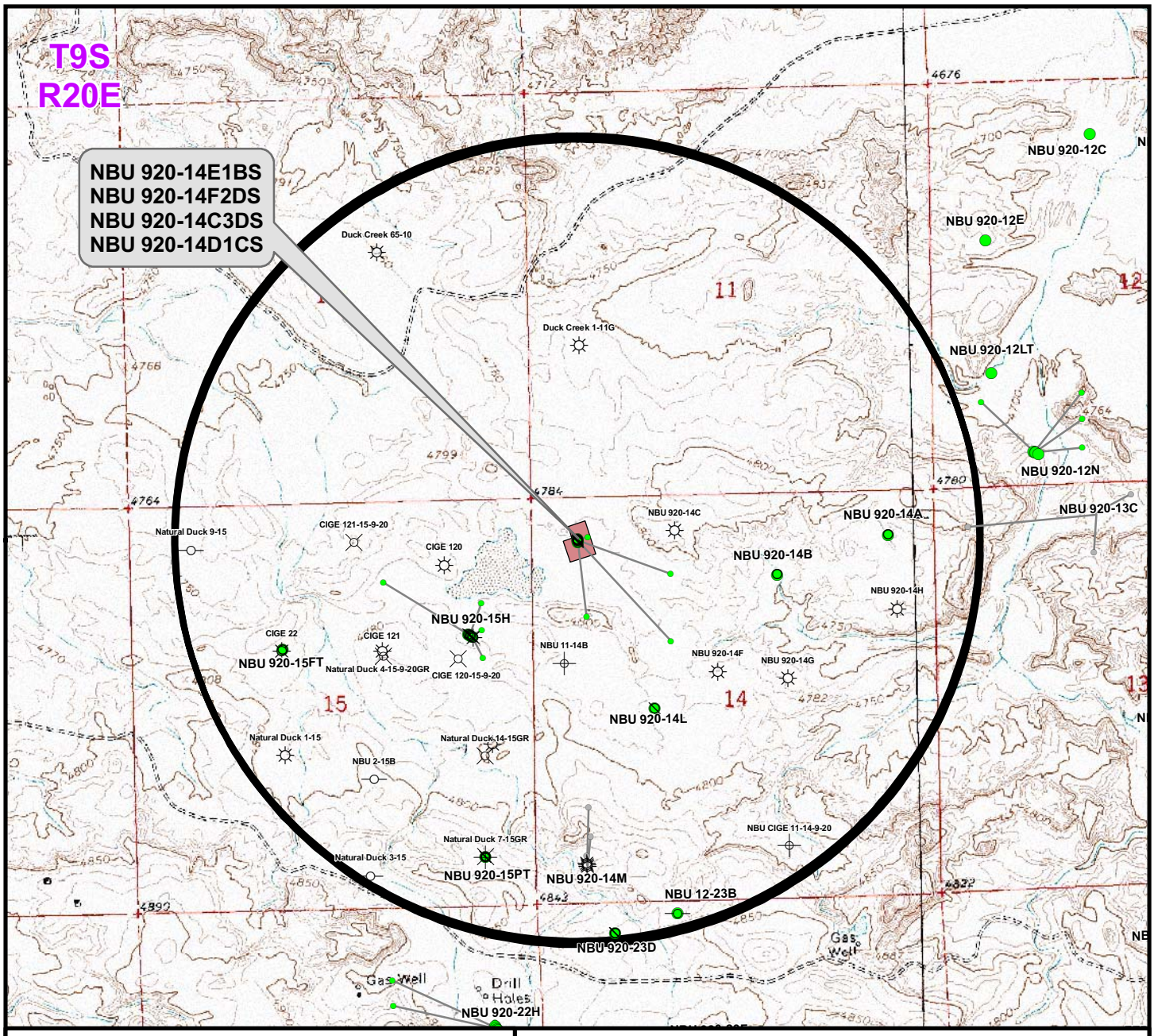
TVDPath	MDPath	Formation
1000.00	1007.16	GREEN RIVER
1220.00	1236.60	BIRDSNEST
1770.00	1821.64	MAHOGANY
4104.00	4271.01	WASATCH
6409.00	6576.06	MESAVERDE
8515.99	8683.05	SEGO

CASING DETAILS

TVD	MD	Name	Size
2220.00	2300.52	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 1022-10A4CS/OH)
Created By: RobertScott Date: 9:41 am, 09/2012

RECEIVED: July 19, 2012



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 920-14E1BS	NBU 11-14B	669ft
NBU 920-14F2DS	NBU 920-14F	734ft
NBU 920-14C3DS	NBU 920-14C	567ft
NBU 920-14D1CS	NBU 920-14C	1,145ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 920-14D

TOPO C
NBU 920-14E1BS, NBU 920-14F2DS, NBU 920-14C3DS & NBU 920-14D1CS
LOCATED IN SECTION 14, T9S, R20E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.
1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 12 of 16
DRAWN: JELo	DATE: 25 Dec 2009	
REVISED: TL	DATE: 30 Mar 2012	

Received: July 17, 2012

API Well Number: 43047520960000

Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 920-14D PAD
Well: NBU 920-14E1BS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

WELL DETAILS: NBU 920-14E1BS

GL 4775 & KB 4 @ 4779.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14543892.47	2020871.43	40.041041	-109.640724

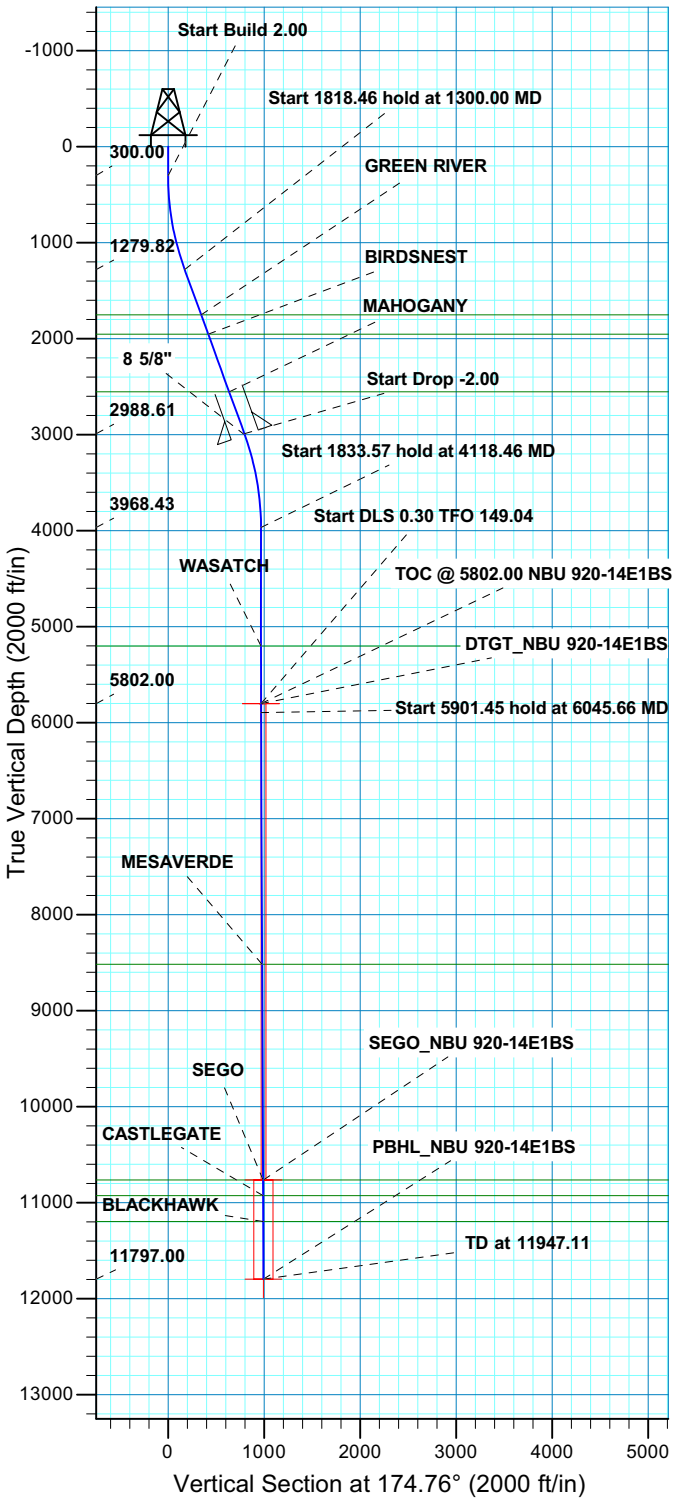
DESIGN TARGET DETAILS

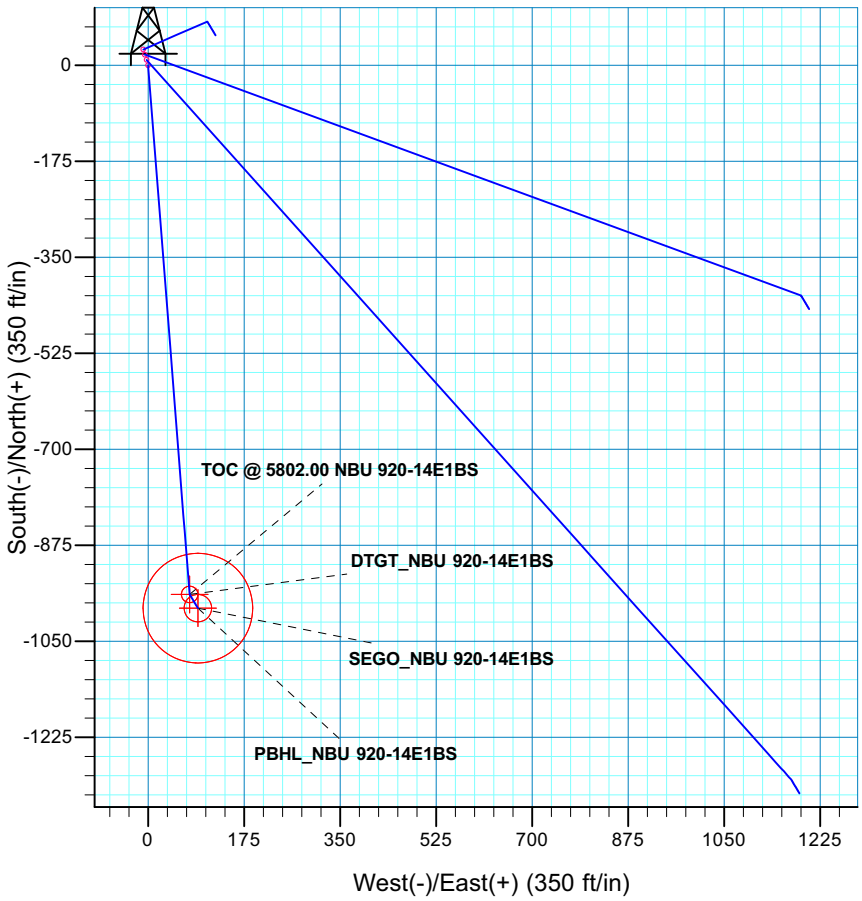
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
DTGT	5802.00	-964.52	75.70	14542929.22	2020961.85	40.038393	-109.640454	Circle (Radius: 15.00)
	- plan hits target center							
TOC	5802.00	-964.52	75.70	14542929.22	2020961.85	40.038393	-109.640454	Point
	- plan hits target center							
SEGO	10764.00	-989.52	90.70	14542904.45	2020977.23	40.038324	-109.640400	Circle (Radius: 25.00)
	- plan misses target center by 5.06ft at 10914.12ft MD (10764.02 TVD, -985.18 N, 88.10 E)							
PBHL	11797.00	-989.52	90.70	14542904.45	2020977.23	40.038324	-109.640400	Circle (Radius: 100.00
	- plan hits target center							

T M

Azimuths to True North
Magnetic North: 11.03°

Magnetic Field
Strength: 52249.9snT
Dip Angle: 65.85°
Date: 04/17/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	175.51	1279.82	-172.24	13.52	2.00	175.51	172.75	
3118.46	20.00	175.51	2988.61	-792.28	62.18	0.00	0.00	794.65	
4118.46	0.00	0.00	3968.43	-964.52	75.70	2.00	180.00	967.40	
5952.04	0.00	0.00	5802.00	-964.52	75.70	0.00	0.00	967.40	DTGT_NBU 920-14E1BS
6045.66	0.28	149.04	5895.63	-964.72	75.82	0.30	149.04	967.61	
11947.11	0.28	149.04	11797.00	-989.52	90.70	0.00	0.00	993.67	PBHL_NBU 920-14E1BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 14 T9S R20E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1752.00	1802.49	GREEN RIVER
1953.00	2016.39	BIRDSNEST
2553.00	2654.89	MAHOGANY
5202.00	5352.04	WASATCH
8518.00	8668.07	MESAVERDE
10764.00	10914.09	SEGO
10927.00	11077.10	CASTLEGATE
11197.00	11347.10	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
3003.00	3133.76	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 920-14E1BS/OH)
Created By: Gabe Kendall Date: 15:24, April 17 2012

RECEIVED: July 17, 2012

API Well Number: 43047520960000

Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 920-14D PAD
Well: NBU 920-14F2DS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

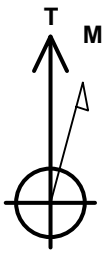
WELL DETAILS: NBU 920-14F2DS

GL 4775 & KB 4 @ 4779.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14543902.26	2020868.48	40.041068	-109.640734

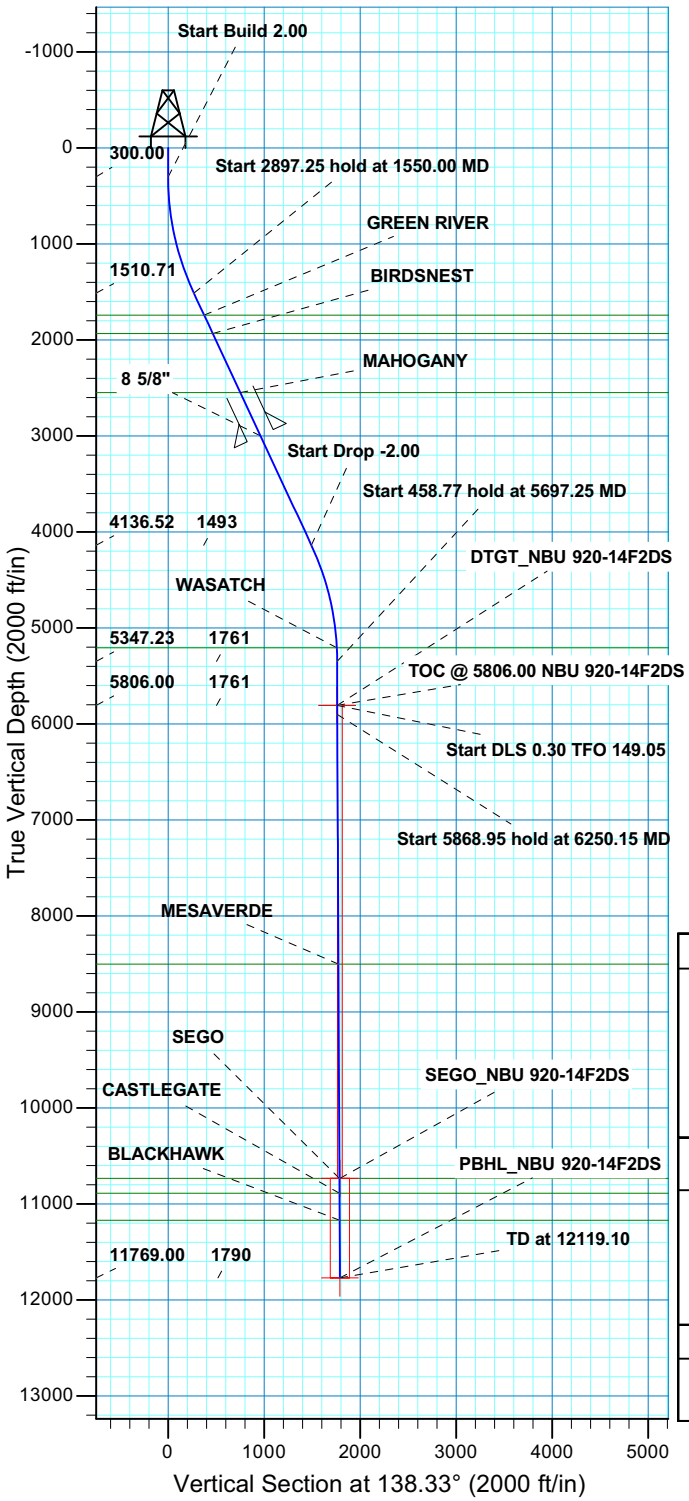
DESIGN TARGET DETAILS

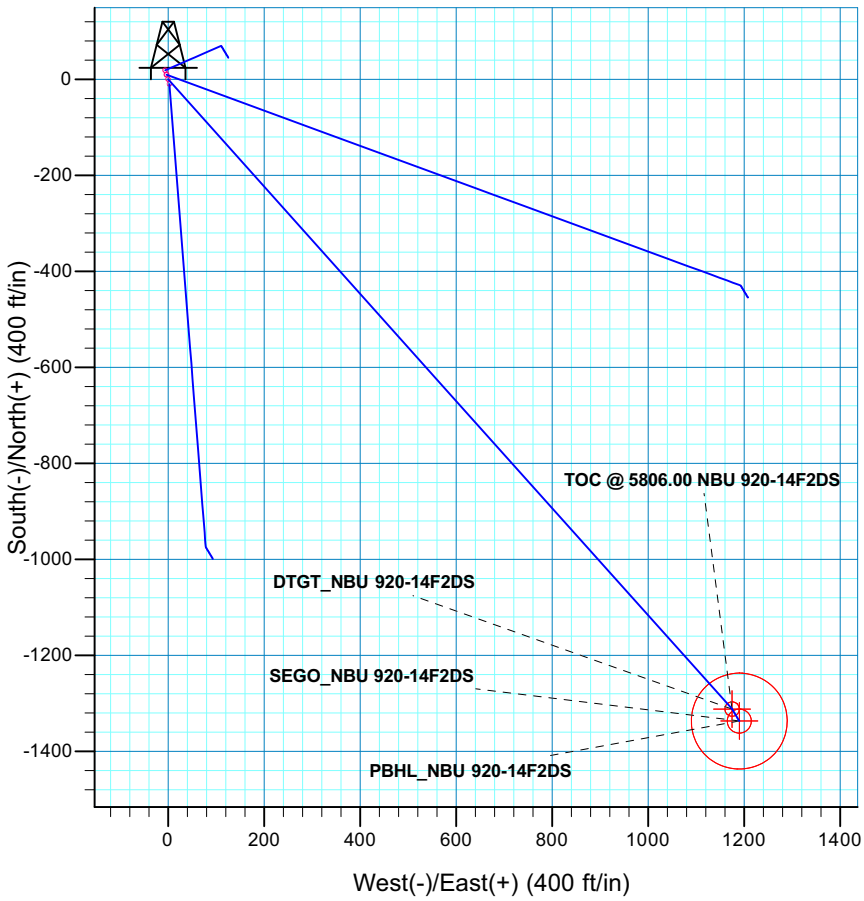
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
DTGT	5806.00	-1311.94	1175.08	14542608.42	2022063.45	40.037466	-109.636537	Circle (Radius: 15.00)
	- plan hits target center							
TOC	5806.00	-1311.94	1175.08	14542608.42	2022063.45	40.037466	-109.636537	Point
	- plan hits target center							
SEGO	10733.00	-1336.94	1190.08	14542583.65	2022078.83	40.037397	-109.636483	Circle (Radius: 25.00)
	- plan misses target center by 5.11ft at 11083.11ft MD (10733.03 TVD, -1332.56 N, 1187.45 E)							
PBHL	11769.00	-1336.94	1190.08	14542583.65	2022078.83	40.037397	-109.636483	Circle (Radius: 100.00
	- plan hits target center							



Azimuths to True North
Magnetic North: 11.03°

Magnetic Field
Strength: 52249.9snT
Dip Angle: 65.85°
Date: 04/17/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1550.00	25.00	138.15	1510.71	-199.94	179.08	2.00	138.15	268.41	
4447.25	25.00	138.15	4136.52	-1112.00	996.00	0.00	0.00	1492.83	
5697.25	0.00	0.00	5347.23	-1311.94	1175.08	2.00	180.00	1761.24	
6156.03	0.00	0.00	5806.00	-1311.94	1175.08	0.00	0.00	1761.24	DTGT_NBU 920-14F2DS
6250.15	0.28	149.05	5900.12	-1312.14	1175.20	0.30	149.05	1761.47	
12119.10	0.28	149.05	11769.00	-1336.94	1190.08	0.00	0.00	1789.89	PBHL_NBU 920-14F2DS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 14 T9S R20E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1741.00	1804.09	GREEN RIVER
1933.00	2015.94	BIRDSNEST
2547.00	2693.42	MAHOGANY
5206.00	5555.97	WASATCH
8502.00	8852.06	MESAVERDE
10733.00	11083.08	SEGO
10887.00	11237.09	CASTLEGATE
11169.00	11519.09	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2997.00	3189.94	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 920-14F2DS/OH)
Created By: Gabe Kendall Date: 15:04, April 27 2012

RECEIVED: July 17, 2012

API Well Number: 43047520960000

Scientific Drilling
Rocky Mountain Operations

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 920-14D PAD
Well: NBU 920-14C3DS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

T M

Azimuths to True North
Magnetic North: 11.03°

Magnetic Field
Strength: 52249.9snT
Dip Angle: 65.85°
Date: 04/17/2012
Model: IGRF2010

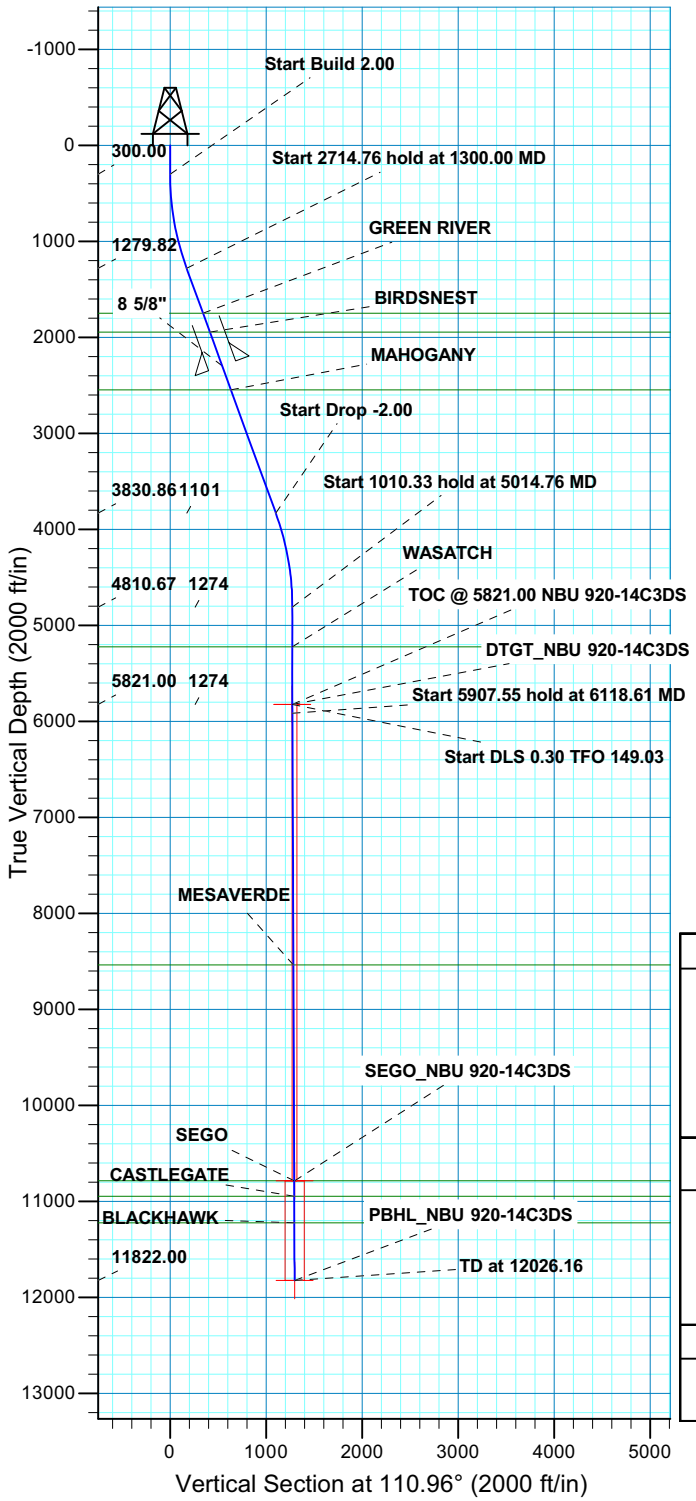
WELL DETAILS: NBU 920-14C3DS

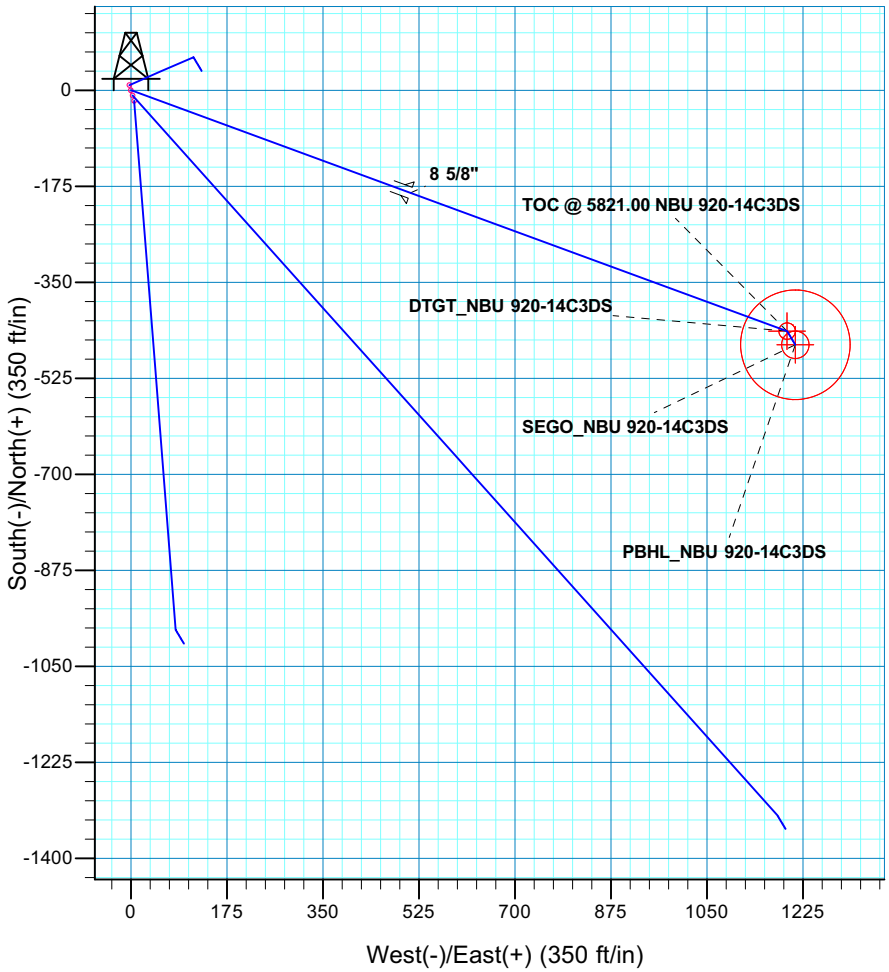
GL 4775 & KB 4 @ 4779.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14543911.69	2020865.26	40.041094	-109.640745

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
DTGT	5821.00	-438.96	1196.03	14543491.03	2022067.85	40.039889	-109.636473	Circle (Radius: 15.00)
	- plan hits target center							
TOC	5821.00	-438.96	1196.03	14543491.03	2022067.85	40.039889	-109.636473	Point
	- plan hits target center							
SEGO	10784.00	-463.96	1211.03	14543466.27	2022083.23	40.039820	-109.636419	Circle (Radius: 25.00)
	- plan misses target center by 5.08ft at 10988.17ft MD (10784.02 TVD, -459.60 N, 1208.42 E)							
PBHL	11822.00	-463.96	1211.03	14543466.27	2022083.23	40.039820	-109.636419	Circle (Radius: 100.00
	- plan hits target center							





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	110.15	1279.82	-59.53	162.19	2.00	110.15	172.75	
4014.76	20.00	110.15	3830.86	-379.43	1033.84	0.00	0.00	1101.16	
5014.76	0.00	0.00	4810.67	-438.96	1196.03	2.00	180.00	1273.91	
6025.09	0.00	0.00	5821.00	-438.96	1196.03	0.00	0.00	1273.91	DTGT_NBU 920-14C3DS
6118.61	0.28	149.03	5914.52	-439.16	1196.15	0.30	149.03	1274.09	
12026.16	0.28	149.03	11822.00	-463.96	1211.03	0.00	0.00	1296.86	PBHL_NBU 920-14C3DS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 14 T9S R20E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

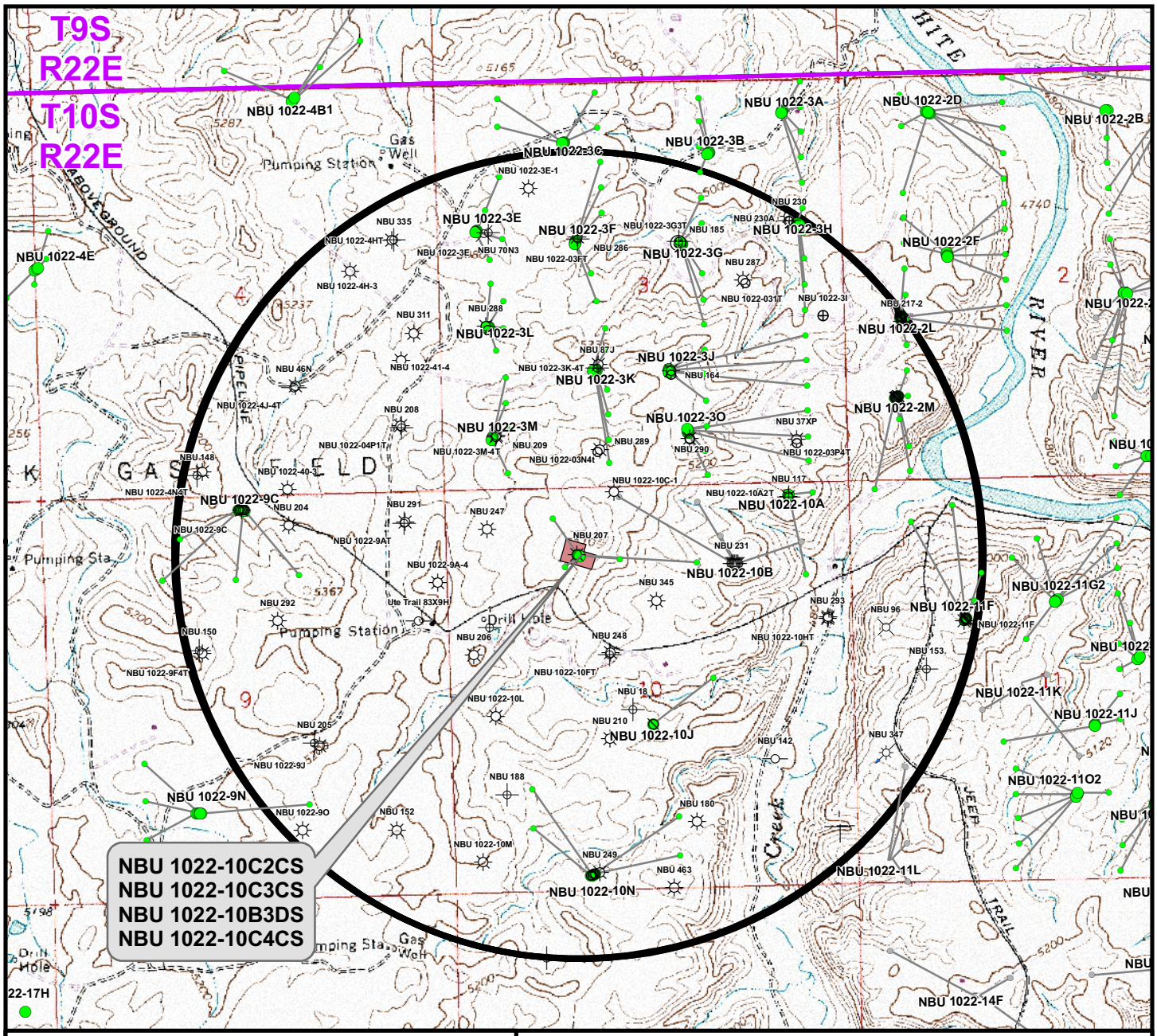
TVDPath	MDPath	Formation
1747.00	1797.17	GREEN RIVER
1943.00	2005.75	BIRDSNEST
2545.00	2646.38	MAHOGANY
5221.00	5425.09	WASATCH
8535.00	8739.12	MESAVERDE
10784.00	10988.15	SEGO
10946.00	11150.15	CASTLEGATE
11222.00	11426.15	BLACKHAWK

CASING DETAILS

TVD	MD	Name	Size
2295.00	2380.34	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 920-14C3DS/OH)
Created By: Gabe Kendall Date: 15:21, April 17 2012

RECEIVED: July 17, 2012



Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 1022-10C2CS	NBU 207	572ft
NBU 1022-10C3CS	NBU 207	227ft
NBU 1022-10B3DS	NBU 231	448ft
NBU 1022-10C4CS	NBU 207	569ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Spudded
- APD Approved
- Preliminary Location
- Deferred
- Cancelled
- Temporarily Abandoned
- Active Injector
- Location Abandoned
- Plugged & Abandoned
- Shut-In

WELL PAD - NBU 1022-10C

TOPO C
NBU 1022-10C2CS, NBU 1022-10C3CS, NBU 1022-10B3DS & NBU 1022-10C4CS
LOCATED IN SECTION 10, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

Kerr-McGee Oil & Gas Onshore L.P.

1099 18th Street
Denver, Colorado 80202

609 CONSULTING, LLC
2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO: 12
DRAWN: TL	DATE: 12 June 2012	12 OF 16
REVISED:	DATE:	

Received: July 19, 2012

API Well Number: 43047520960000

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10C PAD
Well: NBU 1022-10B3DS
Wellbore: OH
Design: PLAN #1 PERMIT

Scientific Drilling

Anadarko Petroleum Corporation

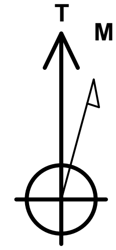
WELL DETAILS: NBU 1022-10B3DS

GL 5303 & KB 4 @ 5307.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	14518359.02	2080721.99	39.968241	-109.428571

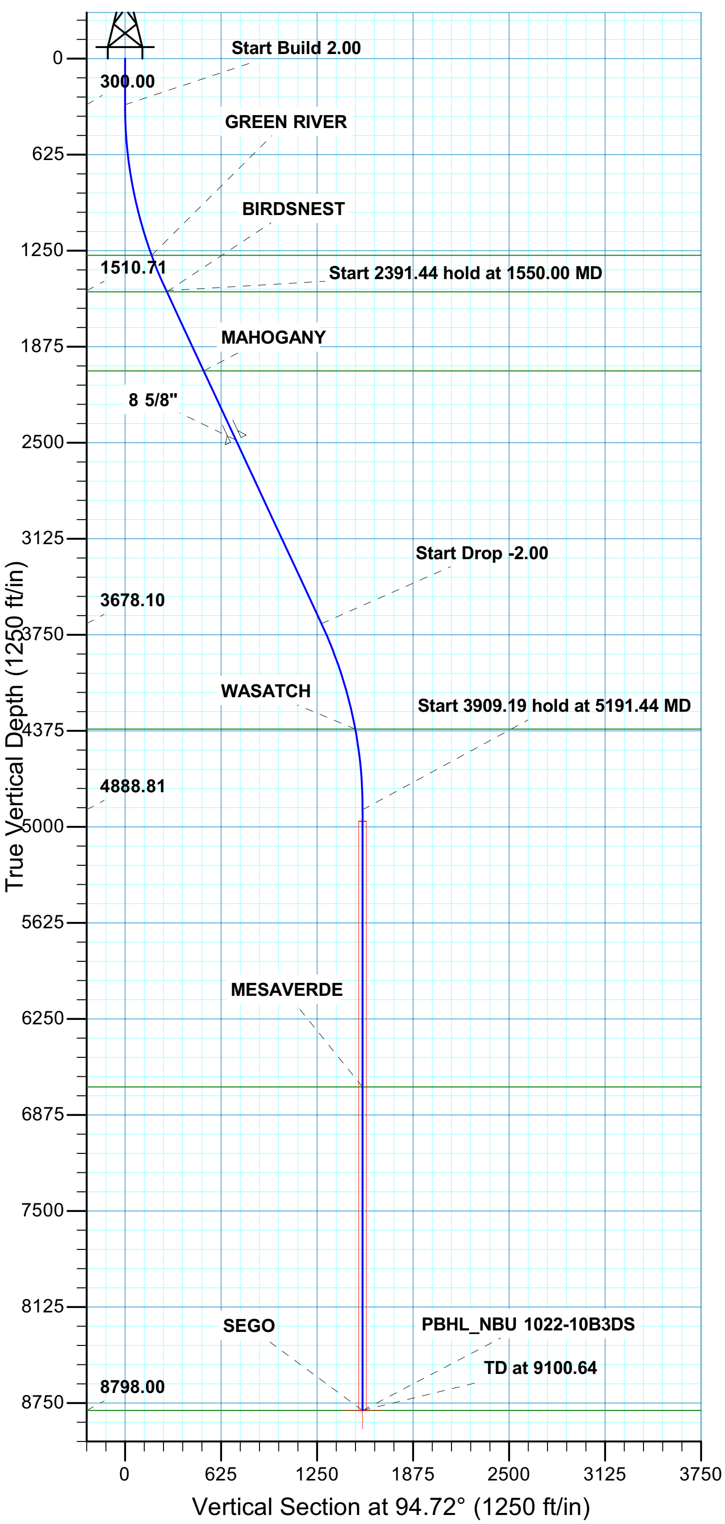
DESIGN TARGET DETAILS

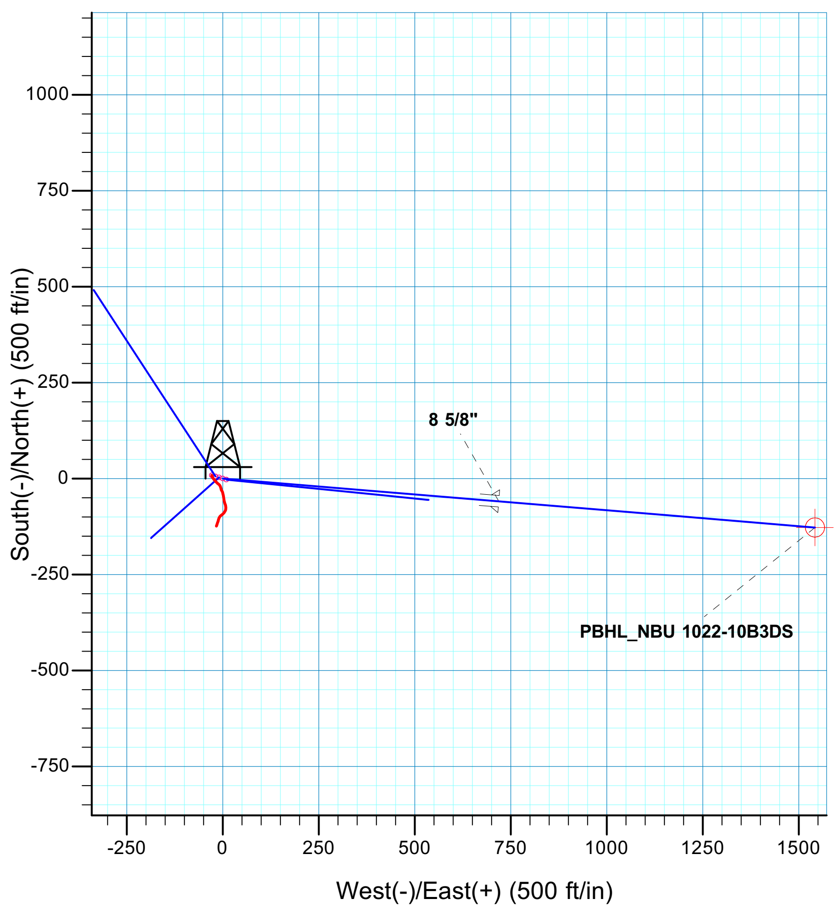
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8798.00	-127.43	1542.23	14518258.79	2082266.22	39.967891	-109.423068	Circle (Radius: 25.00)
- plan hits target center								



Azimuths to True North
Magnetic North: 10.90°

Magnetic Field
Strength: 52212.9snT
Dip Angle: 65.83°
Date: 07/09/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1550.00	25.00	94.72	1510.71	-22.10	267.50	2.00	94.72	268.41	
3941.44	25.00	94.72	3678.10	-105.33	1274.73	0.00	0.00	1279.08	
5191.44	0.00	0.00	4888.81	-127.43	1542.23	2.00	180.00	1547.48	
9100.64	0.00	0.00	8798.00	-127.43	1542.23	0.00	0.00	1547.48	PBHL_NBU 1022-10B3DS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 10 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1280.00	1300.20	GREEN RIVER
1518.00	1558.04	BIRDSNEST
2033.00	2126.28	MAHOGANY
4364.00	4663.65	WASATCH
6693.00	6995.64	MESAVERDE
8797.99	9100.63	SEGO

CASING DETAILS

TVD	MD	Name	Size
2483.00	2622.80	8 5/8"	8.625

Plan: PLAN #1 PERMIT (NBU 1022-10B3DS/OH)

Created By: Gabe Kendall Date: 9:24, July 09 2012

RECEIVED: July 19, 2012

API Well Number: 43047520960000

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10C PAD
Well: NBU 1022-10C2CS
Wellbore: OH
Design: PLAN #1 PERMIT

Scientific Drilling

Anadarko Petroleum Corporation

WELL DETAILS: NBU 1022-10C2CS

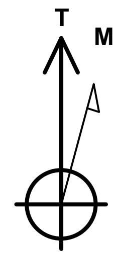
GL 5303 & KB 4 @ 5307.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	14518364.51	2080702.83	39.968257	-109.428639

DESIGN TARGET DETAILS

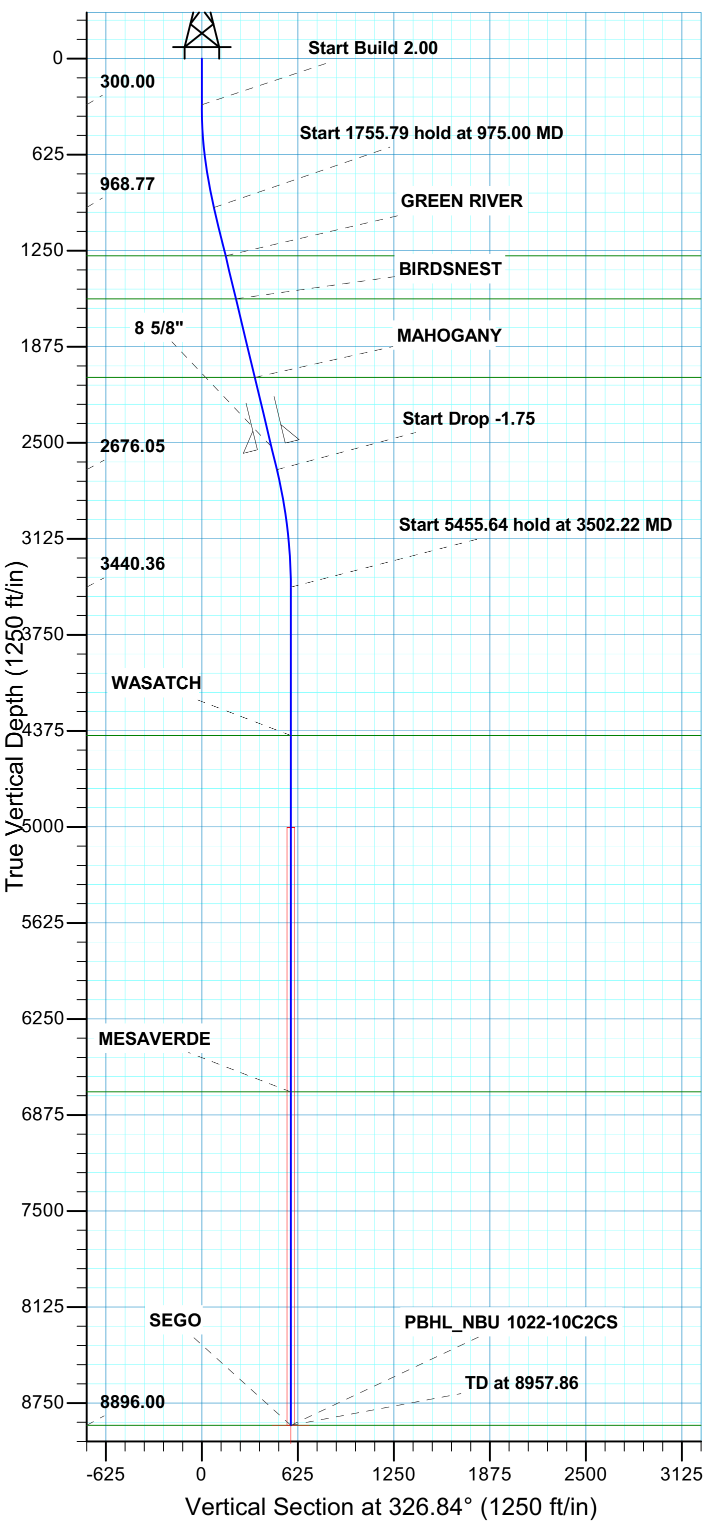
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8896.00	485.13	-316.96	14518843.99	2080377.37	39.969589	-109.429770	Circle (Radius: 25.00)

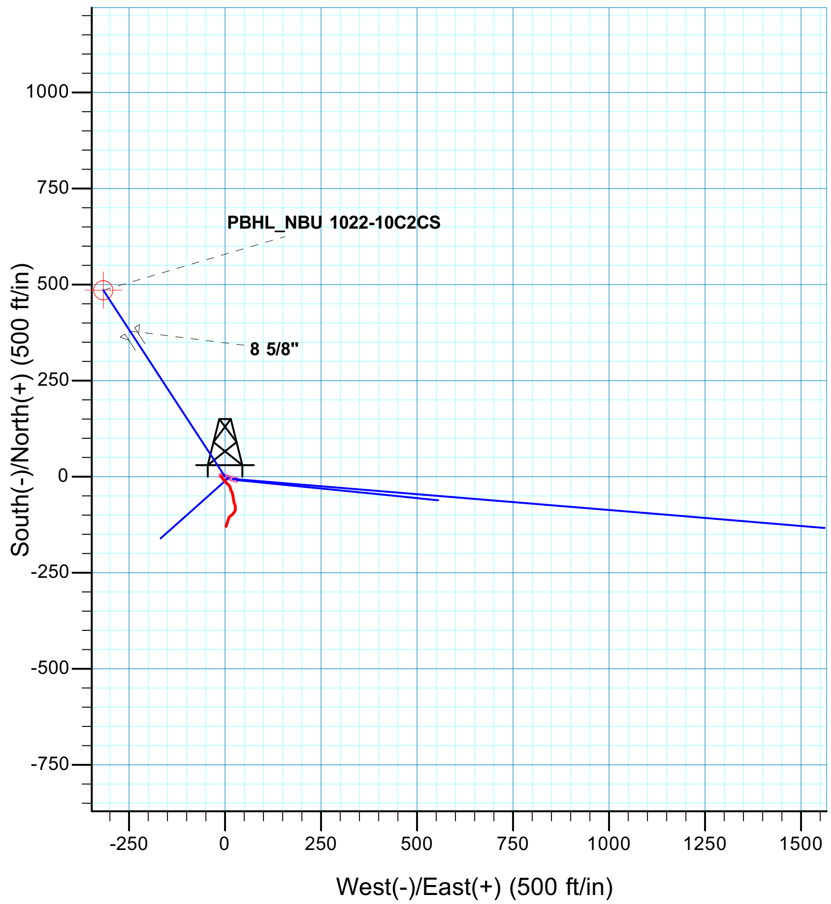
- plan hits target center



Azimuths to True North
Magnetic North: 10.90°

Magnetic Field
Strength: 52212.9snT
Dip Angle: 65.83°
Date: 07/09/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
975.00	13.50	326.84	968.77	66.27	-43.29	2.00	326.84	79.15	
2730.79	13.50	326.84	2676.05	409.40	-267.48	0.00	0.00	489.04	
3502.22	0.00	0.00	3440.36	485.13	-316.96	1.75	180.00	579.50	
8957.86	0.00	0.00	8896.00	485.13	-316.96	0.00	0.00	579.50	PBHL_NBU 1022-10C2CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 10 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1284.00	1299.19	GREEN RIVER
1564.00	1587.14	BIRDSNEST
2075.00	2112.66	MAHOGANY
4406.00	4467.86	WASATCH
6726.00	6787.86	MESAVERDE
8896.00	8957.86	SEGO

CASING DETAILS

TVD	MD	Name	Size
2525.00	2575.45	8 5/8"	8.625

Plan: PLAN #1 PERMIT (NBU 1022-10C2CS/OH)

Created By: Gaile Kendall Date: 9:19, July 09 2012

RECEIVED Received: July 19, 2012

API Well Number: 43047529960000

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10C PAD
Well: NBU 1022-10C4CS
Wellbore: OH
Design: PLAN #1 PERMIT

WELL DETAILS: NBU 1022-10C4CS

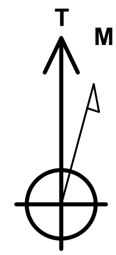
GL 5303 & KB 4 @ 5307.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	14518356.28	2080731.56	39.968233	-109.428537

DESIGN TARGET DETAILS

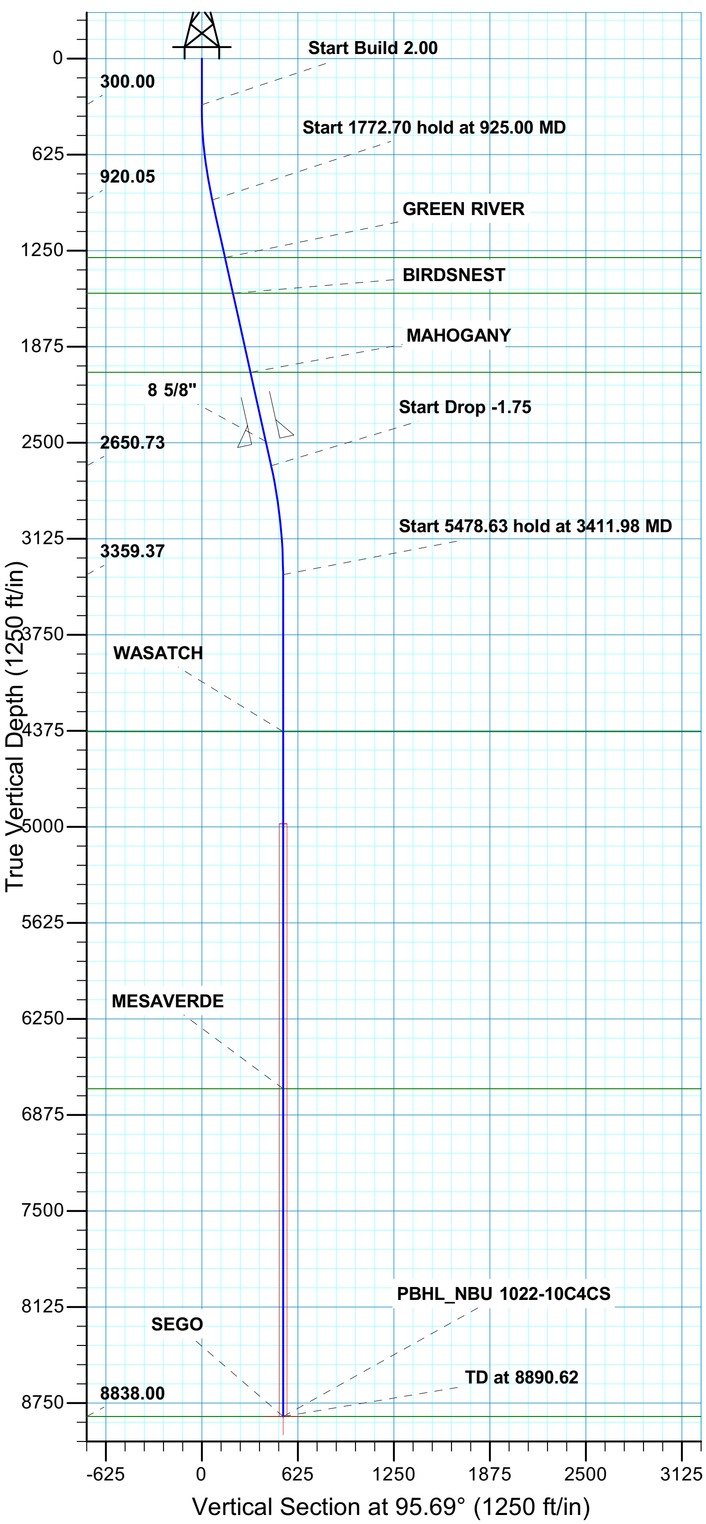
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8838.00	-52.44	526.59	14518313.12	2081259.00	39.968089	-109.426658	Circle (Radius: 25.00)

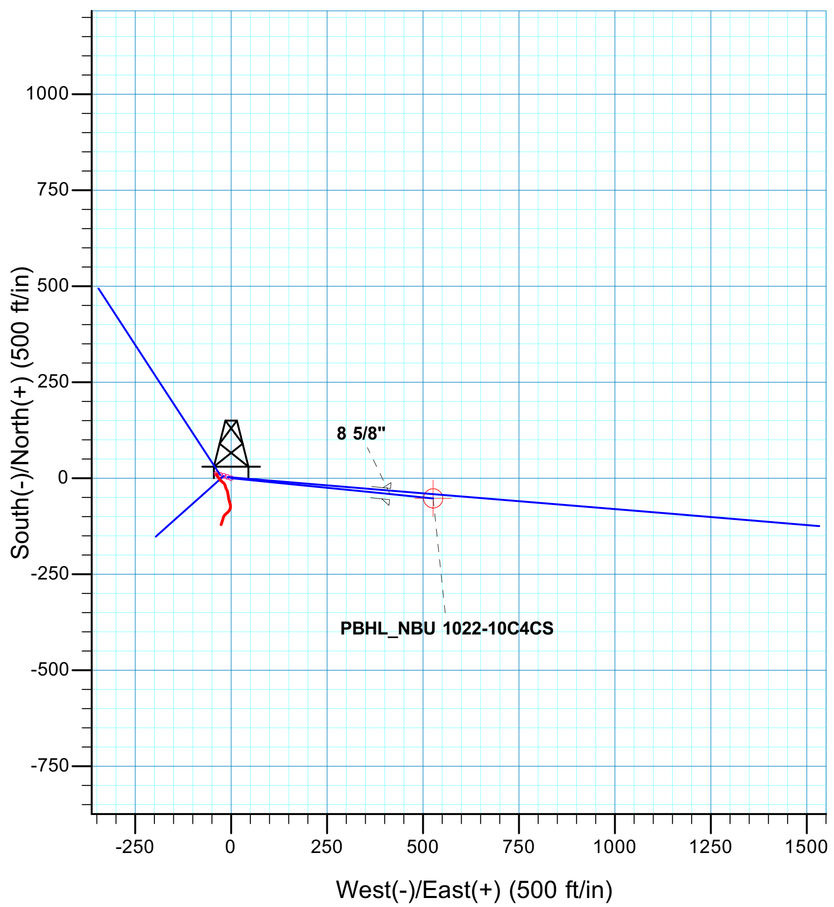
- plan hits target center



Azimuths to True North
Magnetic North: 10.90°

Magnetic Field
Strength: 52212.9snT
Dip Angle: 65.83°
Date: 07/09/2012
Model: IGRF2010





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
925.00	12.50	95.69	920.05	-6.73	67.57	2.00	95.69	67.91	
2697.70	12.50	95.69	2650.73	-44.75	449.37	0.00	0.00	451.59	
3411.98	0.00	0.00	3359.37	-52.44	526.59	1.75	180.00	529.20	
8890.62	0.00	0.00	8838.00	-52.44	526.59	0.00	0.00	529.20	PBHL_NBU 1022-10C4CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 10 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1295.00	1309.05	GREEN RIVER
1528.00	1547.71	BIRDSNEST
2042.00	2074.19	MAHOGANY
4380.00	4432.62	WASATCH
6704.00	6756.62	MESAVERDE
8838.00	8890.62	SEGO

CASING DETAILS

TVD	MD	Name	Size
2492.00	2535.11	8 5/8"	8.625

Plan: PLAN #1 PERMIT (NBU 1022-10C4CS/OH)

Created By: Gale Kendall Date: 9:29, July 09 2012

RECEIVED: July 19, 2012
Received: July 19, 2012

API Well Number: 43047520960000

Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-10C PAD
Well: NBU 1022-10C3CS
Wellbore: OH
Design: PLAN #1 PERMIT

Scientific Drilling

Anadarko Petroleum Corporation

T M
Azimuths to True North
Magnetic North: 10.90°

Magnetic Field
Strength: 52212.9snT
Dip Angle: 65.83°
Date: 07/09/2012
Model: IGRF2010

WELL DETAILS: NBU 1022-10C3CS

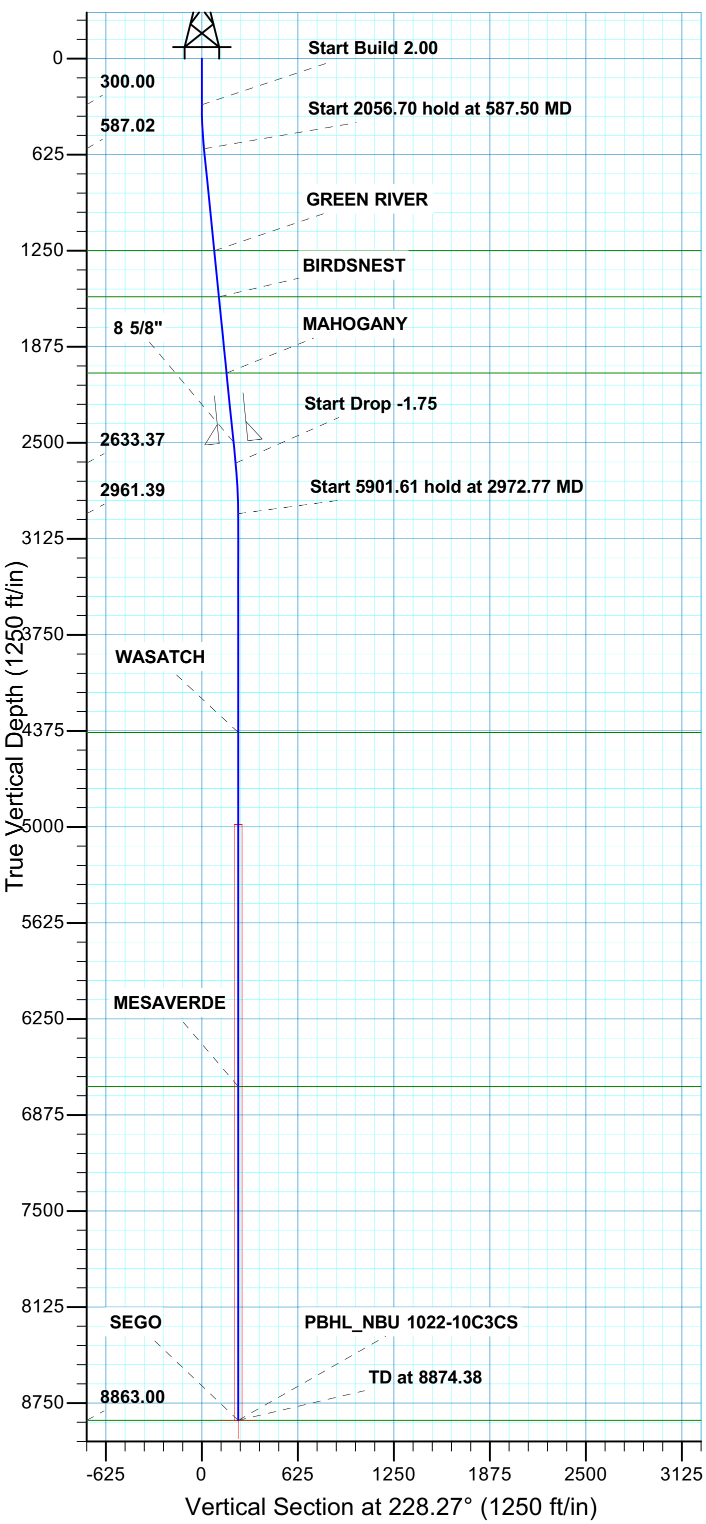
GL 5303 & KB 4 @ 5307.00ft (ASSUMED)

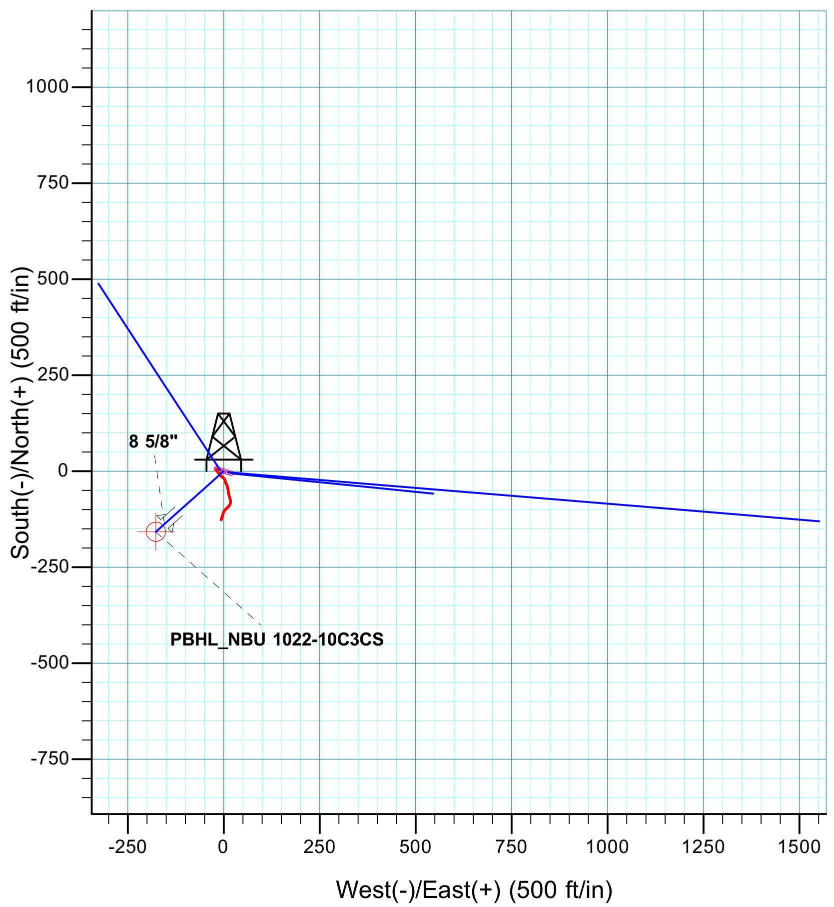
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	14518361.77	2080712.41	39.968249	-109.428605

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8863.00	-157.70	-176.84	14518200.97	2080538.37	39.967816	-109.429236	Circle (Radius: 25.00)

- plan hits target center





SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
587.50	5.75	228.27	587.02	-9.59	-10.76	2.00	228.27	14.41	
2644.20	5.75	228.27	2633.37	-146.74	-164.54	0.00	0.00	220.47	
2972.77	0.00	0.00	2961.39	-157.70	-176.84	1.75	180.00	236.94	
8874.38	0.00	0.00	8863.00	-157.70	-176.84	0.00	0.00	236.94	PBHL_NBU 1022-10C3CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 10 T10S R22E
System Datum: Mean Sea Level

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1251.00	1254.84	GREEN RIVER
1551.00	1556.36	BIRDSNEST
2047.00	2054.87	MAHOGANY
4386.00	4397.38	WASATCH
6690.00	6701.38	MESAVERDE
8863.00	8874.38	SEGO

CASING DETAILS

TVD	MD	Name	Size
2497.00	2507.14	8 5/8"	8.625

Plan: PLAN #1 PERMIT (NBU 1022-10C3CS/OH)

Created By: Gabe Kendall Date: 9:26, July 09 2012

RECEI **Received: July 19, 2012**

API Well Number: 43047529960000

From: Jeff Conley
To: Hill, Brad; Mason, Diana
CC: Bonner, Ed; Davis, Jim; Garrison, LaVonne; danielle.piernot@anadarko.com
Date: 8/21/2012 3:02 PM
Subject: Anadarko APD Approvals

Greetings,

The following wells have been approved by SITLA:

Arch and Paleo Clearance granted on:
NBU 1022-10A1BS (4304752994)
NBU 1022-10A4CS (4304752995)
NBU 1022-10B3DS (4304752996)
NBU 1022-10C2CS (4304752997)
NBU 1022-10C4CS (4304752998)
NBU 1022-10C3CS (4304752999)

Thanks,

Jeff Conley
SITLA Resource Specialist
(801)-538-5157
jconley@utah.gov

RECEIVED: August 21, 2012

API Well Number: 43047529960000

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-10B3DS 43047529960000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-10B3DS 4304752			
String	SURF	PROD		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2480	8798		
Previous Shoe Setting Depth (TVD)	0	2480		
Max Mud Weight (ppg)	8.3	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5367	11.7		

Calculations	SURF String	8.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	1070		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	772	NO	air/mist system, air bowl
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	524	NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	524	NO	Reasonable depth for area
Required Casing/BOPE Test Pressure=		2373	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient	

Calculations	PROD String	4.500	"	
Max BHP (psi)	.052*Setting Depth*MW=	5719		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4663	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3783	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4329	NO	Reasonable
Required Casing/BOPE Test Pressure=		5000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		2480	psi *Assumes 1psi/ft frac gradient	

Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	

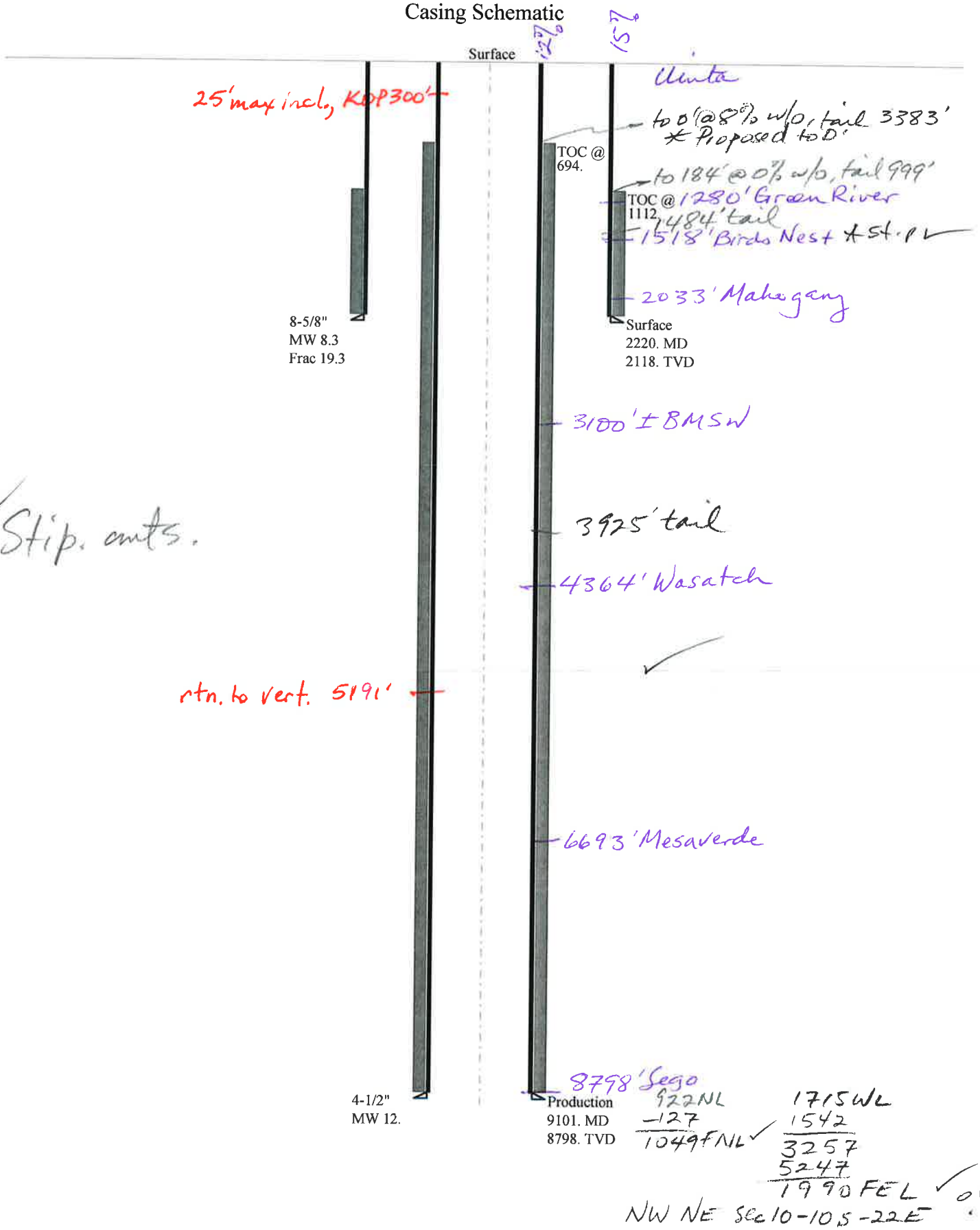
Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	

RECEIVED: November 07, 2012

API Well Number: 43047529960000

43047529960000 NBU 1022-10B3DS

Casing Schematic



922 NL
−127
1049 FNL ✓

1715 WL
1542
3257
5247
1990 FEL ✓ OK

NW NE Sec 10-10S-22E

Well name:	**43047529960000 NBU 1022-10B3DS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Surface
Project ID:	43-047-52996+
Location:	UINTAH COUNTY

Design parameters:

Collapse
Mud weight: 8.300 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,887 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,141 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,934 ft

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 104 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,112 ft

Directional Info - Build & Drop
Kick-off point 300 ft
Departure at shoe: 552 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 25 °

Re subsequent strings:
Next setting depth: 8,798 ft
Next mud weight: 12.500 ppg
Next setting BHP: 5,713 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,144 ft
Injection pressure: 2,144 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2220	8.625	28.00	I-55	LT&C	2118	2220	7.892	87912

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	913	1880	2.059	2141	3390	1.58	59.3	348	5.87 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: November 5,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2118 ft, a mud weight of 8.3 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**43047529960000 NBU 1022-10B3DS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-52996+
Location:	UINTAH COUNTY

Design parameters:

Collapse
Mud weight: 12.000 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 3,549 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,485 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 7,523 ft

Estimated cost: 186,132 ($)

Environment:
H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 197 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 694 ft

Directional Info - Build & Drop
Kick-off point 300 ft
Departure at shoe: 1548 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
2	5000	4.5	11.60	I-80	DQX	4698	5000	3.875	132000
1	4101	4.5	11.60	I-80	LT&C	8798	9101	3.875	54132

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	2928	5893	2.012	4582	7780	1.70	102.1	267	2.62 J
1	5485	6360	1.160	5485	7780	1.42	47.6	212	4.46 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: November 5,2012
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 8798 ft, a mud weight of 12 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-10B3DS
API Number 43047529960000 **APD No** 6460 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NENW **Sec** 10 **Tw** 10.0S **Rng** 22.0E 922 FNL 1715 FWL
GPS Coord (UTM) 634139 4425406 **Surface Owner**

Participants

Danielle Piernot, Doyle Holmes, Charles Chase, (Anadarko); Jeff Conley, Jim Davis, (SITLA); Mitch Batty, Wes Wood, (Timberline); David Hackford, (DOGM).

Regional/Local Setting & Topography

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. The White River is 3/4 mile to the east. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 45 air miles to the northwest. Access from Vernal is approximately 56.4 road miles following Utah State, Uintah County and oilfield development roads to the location.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	**Width** 292 **Length** 400	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Area beyond the existing pad is poorly vegetated with greasewood, cheatgrass, black sagebrush, broom snakeweed, Sitanion hystrix , shadscale, pepper weed, halogeton and annuals.

Sheep, deer, antelope, coyote, and other small mammals and birds.

Soil Type and Characteristics

RECEIVED: November 08, 2012

Rocky sandy clay loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

Reserve pit will be located on the north side of the location and will be 235' long and 80' wide and 12' deep. It will be lined with a plastic liner and also a felt sub-liner. The east side of pit will be in cut, and the west side will be in as much as 5.2' of fill.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

David Hackford	8/7/2012
Evaluator	**Date / Time**

RECEIVED: November 08, 2012

Application for Permit to Drill
Statement of Basis
Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
6460	43047529960000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		**Surface Owner-APD**		
Well Name	NBU 1022-10B3DS		**Unit**	NATURAL BUTTES	
Field	NATURAL BUTTES		**Type of Work**	DRILL	
Location	NENW 10 10S 22E S 922 FNL 1715 FWL GPS Coord (UTM) 634140E 4425397N				

Geologic Statement of Basis

Kerr McGee proposes to set 2,480’ of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,100'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill	11/1/2012
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. An occasional pond has been constructed to supply water for livestock and antelope.

The pad of the existing NBU 207 producing gas well is proposed to be enlarged for an additional 4 wells. They are the NBU 1022-10B3DS, NBU 1022-10C2CS, NBU 1022-10C3CS and the NBU 1022-10C4CS. Bitter Creek, which is an ephemeral drainage, enters the White River 3/4 mile to the east. The existing pad shows no stability problems. It is expected that the location including the reserve pit should be stable and it is the only suitable site in the area.

Both the surface and minerals are owned by SITLA. Jim Davis and Jeff Conley of SITLA attended the presite and were agreeable to the modifications. They had no additional concerns regarding the proposal.

Utah Division of Wildlife Resources personnel were invited to the presite, but did not attend.

David Hackford	8/7/2012
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition

RECEIVED: November 08, 2012

Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the north side of the location.

RECEIVED: November 08, 2012

API Well Number: 43047529960000

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 7/19/2012 **API NO. ASSIGNED:** 43047529960000

WELL NAME: NBU 1022-10B3DS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NENW 10 100S 220E **Permit Tech Review:** ☑

SURFACE: 0922 FNL 1715 FWL **Engineering Review:** ☑

BOTTOM: 1038 FNL 1990 FEL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 39.96810 **LONGITUDE:** -109.42929

UTM SURF EASTINGS: 634140.00 **NORTHINGS:** 4425397.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UO 01197 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** STATE - 22013542
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** 43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ☑ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: Suspends General Siting

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald

RECEIVED: November 08, 2012

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill
****

Well Name: NBU 1022-10B3DS
API Well Number: 43047529960000
Lease Number: UO 01197
Surface Owner: STATE
Approval Date: 11/8/2012

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
  at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
  - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or

plugging

Approved By:

For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01197

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10B3DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047529960000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0922 FNL 1715 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 6/21/2013	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Spud well 06/21/2013 @ 12:00. MIRU Triple A Bucket Rig, drill 20" conductor hole to 40', run 14", 36.7# schedule 10 conductor pipe, cement with 28 sacks ready mix. Anticipated surface spud date and surface casing cement 07/07/2013.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
June 24, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Doreen Green	435 781-9758	Regulatory Analyst II
SIGNATURE N/A		**DATE** 6/24/2013

RECEIVED: Jun. 24, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UO 01197

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1022-10B3DS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047529960000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0922 FNL 1715 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NENW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 8/5/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Drilled to 9,103 ft. in July 2013

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
August 05, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE		**DATE**
N/A		8/5/2013

RECEIVED: Aug. 05, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
UO 01197

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 1022-10B3DS

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43047529960000

3. ADDRESS OF OPERATOR:
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:
720 929-6526

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0922 FNL 1715 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NENW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

11.
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 9/3/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No activity for the month of August 2013. Well TD at 9,103 ft.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
September 04, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Matthew P Wold	720 929-6993	Regulatory Analyst I
SIGNATURE		**DATE**
N/A		9/3/2013

RECEIVED: Sep. 03, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01197

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10B3DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047529960000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0922 FNL 1715 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 9/3/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

No activity for the month of August 2013. Well TD at 9,103 ft.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
October 01, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Matthew P Wold	720 929-6993	Regulatory Analyst I
SIGNATURE		**DATE**
N/A		9/3/2013

RECEIVED: Sep. 03, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01197

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10B3DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047529960000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0922 FNL 1715 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 10/4/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Started completing the well. Well TD at 9,103 ft.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 07, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 10/4/2013

RECEIVED: Oct. 04, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01197

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10B3DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047529960000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0922 FNL 1715 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 10/11/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 10/11/2013. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 15, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 10/14/2013

RECEIVED: Oct. 14, 2013

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01197

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-10B3DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047529960000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0922 FNL 1715 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 10/26/2013	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING TO 9103 ON 7/31/2013. CEMENTED PRODUCTION CASING. RELEASED H&P 298 RIG ON 8/1/2013. DETAILS OF CASING AND CEMENT WAS INCLUDED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
November 26, 2013

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Teena Paulo	720 929-6236	Staff Regulatory Specialist
SIGNATURE N/A		**DATE** 11/26/2013

RECEIVED: Nov. 26, 2013

API Well Number: 43047529960000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-A ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME: UTU63047A

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

8. WELL NAME and NUMBER: NBU 1022-10B3DS

2. NAME OF OPERATOR: KERR-MCGEE OIL AND GAS ONSHORE LP

9. API NUMBER: 43-047-52996

3. ADDRESS OF OPERATOR: P.O. Box 173779 CITY Denver STATE Co ZIP 82017

PHONE NUMBER: 720-929-6000

10 FIELD AND POOL, OR WILDCAT: Natural Buttes

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: NENW 922 FNL 1715 FWL
AT TOP PRODUCING INTERVAL REPORTED BELOW: NWNE 1058 FNL 1987 FEL
AT TOTAL DEPTH: NWNE 1064 FNL 1981 FEL

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 10 10S 22E SLB

12. COUNTY: UINTAH

13. STATE: UTAH

14. DATE SPUDDED: 6/21/2013

15. DATE T. D. REACHED: 7/31/2013

16. DATE COMPLETED: 10/11/2013 ABANDONED ☐ READY TO PRODUCE ☑

17. ELEVATIONS (DF, RKB, RT, GL): 5328 RKB

18. TOTAL DEPTH: MD 9103 TVD 8809

19. PLUG BACK T.D.: MD 9028 TVD 8734

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
SD/DSN/ACTR-BHV-CBL/GR/CCL/TEMP

23
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20	14 STL	36.7	0	40		28			
11	8.63 J-55	28	26	2647		750		0	
7.875	4.5 I-80	11.6	26	4986		1540		1650	
7.875	4.5 P-110	11.6	4986	9075					

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2.375	8647							

26. PRODUCING INTERVALS / 27. PERFORATION RECORD

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	6968	9005			6,968 9,005	0.36	207	Open ☑ Squeezed ☐
(B)								Open ☐ Squeezed ☐
(C)								Open ☐ Squeezed ☐
(D)								Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INERVAL	AMOUNT AND TYPE OF MATERIAL
6968-9005	PUMP 12,329 BBL SLICKWATER AND 253,409 LBS 30/50 MESH SAND
	9 STAGES

29. ENCLOSED ATTACHMENTS:
☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGICAL REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: PRODUCING

(5/2000)

(CONTINUED ON BACK)

RECEIVED: Nov. 08, 2013

API Well Number: 43047529960000

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
10/11/2013	10/18/2013	24		13	2585	0	Flowing

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS
20/64	1332	2007					13	2585	0	Producing

INTERVAL B (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS

INTERVAL C (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS

INTERVAL D (As shown in Item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	1251
				BIRD'S NEST	1516
				MAHOGANY	2124
				WASATCH	4680
				MESAVERDE	6962

35. ADDITIONAL REMARKS (Include plugging procedures)

The first 210 ft. of the surface hole was drilled with a 12 ¼ in. bit. The remainder of surface hole was drilled with an 11 in. bit. DQX csg was run from surface to 4986 ft.; LTC csg was run from 4986 ft. to 9075 ft. Attached is the chronological well history, perforation report & final survey.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Teena Paulo TITLE Staff Regulatory Specialist

SIGNATURE DATE 11-8-2013

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratgraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top - Show how reported top(s) of cement were determined (cirulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

RECEIVED: Nov. 08, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW			Spud Date: 7/6/2013
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 6/16/2013		End Date: 8/1/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/6/2013	10:00 - 12:30	2.50	MIRU	01	B	P	66	SKID RIG 20' RIG UP DIVERTER & FLOW LINE. SPOT RIG MAT OVER WELL. SPOT RIG OVER WELL. SET CAT WALK & PIPE RACKS. HOOK UP AND PRIME PUMP.
	12:30 - 13:30	1.00	MIRU	08	A	Z	66	***FAILURE RIG FORKLIFT (CONTROL LOCKED IN THE UP POSITION)
	13:30 - 14:00	0.50	MIRU	23		P	66	PRE SPUD JOB SAFETY MEETING WITH RIG CREW, NOV CREW, AND SCIENTIFIC CREW. REVEW DIRECTIONAL PLANS WITH DIRECTIONAL DRILLERS PRIOR TO SPUD.
	14:00 - 14:30	0.50	DRLSUR	06	A	P	66	PICK UP 12 1/4" BIT & 8" MUD MOTOR. TRIP IN HOLE.
	14:30 - 15:30	1.00	DRLSUR	02	B	P	66	DRILL 12.25" SURFACE HOLE F/ 44'- T/ 210' BIT ROP= 166' @ 166 FPH WOB= 5-15K. RPM= TOP DRIVE~55 / MOTOR ~83 / TOTAL RPM~138 PUMPING 491 GPM @ 120 SPM STAND PIPE PRESSURE ON/OFF BOTTOM = 800/600 TORQUE ON/OFF BOTTOM = 2,700/700 UP/DN/ROT = 22/20/20 PEAK ON LINE MUD WT = 8.4
	15:30 - 16:00	0.50	DRLSUR	06	A	P	232	TRIP OUT OF HOLE. LAY DOWN 12 1/4" BIT
	16:00 - 17:30	1.50	DRLSUR	06	A	P	232	PICK UP 11" BIT & DIRECTIONAL ASSEMBLY, SCRIBE. TRIP IN HOLE
	17:30 - 0:00	6.50	DRLSUR	02	B	P	232	DRILL 11". SURFACE HOLE, F/ 210' - T/ 860', 650' @ 100.0 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,050/800 TORQUE ON OFF = 2,700/1,500 UP/DOWN/ ROT 50/45/48 K. DRAG 2 K. PEAK ON LINE MUD WT 8.4 SLID 103' = 11.0% 10.0' ABOVE & 1.0' LEFT OF THE LINE HOLE ISSUES= NONE
7/7/2013	0:00 - 6:00	6.00	DRLSUR	02	B	P	882	DRILL 11". SURFACE HOLE, F/ 860' - T/ 1,500', 640' @ 106.6 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,000/780 TORQUE ON OFF = 2,700/1,500 UP/DOWN/ ROT 59/50/56 K. DRAG 3 K. PEAK ON LINE MUD WT 8.4 SLID 90' = 20.0% 12.9' ABOVE & 1.5' LEFT OF THE LINE HOLE ISSUES= NONE

RECEIVED: Nov. 08, 2013

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 6/16/2013		End Date: 8/1/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 12:00	6.00	DRLSUR	02	B	P	1522	DRILL 11". SURFACE HOLE, F/ 1,500' - T/ 2,030', 530' @ 88.3 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,220/1,120 TORQUE ON OFF = 2,700/1,500 UP/DOWN/ ROT 75/55/63 K. DRAG 12 K. PEAK ON LINE MUD WT 8.4 SLID 103' = 18.0% 2.1' ABOVE & 3.23' LEFT OF THE LINE HOLE ISSUES= LOST CIRC @ 1,730'
	12:00 - 14:30	2.50	DRLSUR	02	B	P	2052	DRILL 11". SURFACE HOLE, F/ 2,030' - T/ 2,180', 150' @ 60.0 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,300/1,150 TORQUE ON OFF = 2,700/1,500 UP/DOWN/ ROT 75/55/63 K. DRAG 12 K. PEAK ON LINE MUD WT 8.4 SLID 35' = 16.6% 0.9' ABOVE & 4.6' LEFT OF THE LINE HOLE ISSUES= LOST CIRC @ 1,730'
	14:30 - 17:00	2.50	DRLSUR	08	A	Z	2202	****FAILURE: RIG EQUIPMENT - WATER PUMP ON STAND BY AIR COMPRESSOR / CHANGE OUT COMPRESSOR
	17:00 - 23:30	6.50	DRLSUR	02	B	P	2202	DRILL 11". SURFACE HOLE, F/ 2,180' - T/ 2,655', 475' @ 73.1 FPH WEIGHT ON BIT 18-25 K. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. PUMPING 491 GALLON PER MINUTE AT 120 STROKES PER MINUTES. PUMP PRESSURE ON/OFF(BOTTOM) 1,300/1,000 TORQUE ON OFF = 3,100/1,700 UP/DOWN/ ROT 90/60/72 K. DRAG 18 K. PEAK ON LINE MUD WT 8.4 SLID 35' = 7.36% 6.64' ABOVE & 0.80' RIGHT OF THE LINE HOLE ISSUES= LOST CIRC @ 1,730'
	23:30 - 0:00	0.50	DRLSUR	05	C	P	2677	CIRCULATE AND CONDITION HOLE
7/8/2013	0:00 - 1:30	1.50	DRLSUR	05	C	P	2677	CIRCULATE AND CONDITION HOLE / PUMPING 491 GPM @ 120 SPM / RETURNS CLEAN COMING OVER SHAKERS / MUD TANKS 1/2 FULL / 1 - 400 BBL UPRIGHT STORAGE TANKS FULL / 5 - 400 BBL UPRIGHT STORAGE TANKS EMPTY
	1:30 - 5:30	4.00	DRLSUR	06	D	P	2677	LAY DOWN DRILL PIPE & BHA
	5:30 - 6:30	1.00	CSGSUR	12	A	P	2677	PRE JOB SAFETY MEETING WITH PRO PETRO RIG CREW . MOVE PIPE RACKS AND CATWALK. RIG UP TO RUN SURFACE CASING. CLEAR UNRELATED TOOLS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD	Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 6/16/2013	End Date: 8/1/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:30 - 8:30	2.00	CSGSUR	12	C	P	2677	RAN 59 JOINTS (2,625') OF 8-5/8", 28#, J-55, LT&C CASING WITH TOPCO FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE SHOE. 5 CENTRALIZERS SPACED 10' ABOVE SHOE, 2ND & 3RD COLLARS AND EVERY THIRD COLLAR TO 2,269'. LANDED SHOE @ 2,625' KB. BAFFLE PLATE @ 2,578' KB.
	8:30 - 10:30	2.00	CSGSUR	12	E	P	2677	PRE JOB SAFETY MEETING WITH PRO PETRO CEMENTERS. RAN 200' OF 1". PIPE DOWN BACK-SIDE OF CASING. PRESSURE TEST LINES TO 2000 PSI. PUMP 150 BBLS OF WATER AHEAD CLEARING SHOE. MIX AND PUMP 20 BBLS OF GEL WATER FLUSH AHEAD OF CEMENT. MIX AND PUMP 300 SX OF PREMIUM CEMENT WITH 2% CACL2 & 0.25 LB/SX FLOCELE, 61.4 BBLS MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. DROP PLUG ON FLY. DISPLACE WITH 160.9 BBLS OF FRESH WATER. NO RETURNS THROUGH OUT JOB. FINAL LIFT OF 290 PSI AT 4 BBL/MINUTE. BUMPED PLUG @ 590. HELD @ 590 PSI FOR 5 MINS WITHOUT BLEED OFF. TESTED FLOAT AND FLOAT HELD. RELEASE RIG @ 10:30, 7/08/2013 TOP JOB # 1: PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, 3% GR-3, & .25 LB/SX FLOCELE, 30.7 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO CEMENT RETURNS TO SURFACE. WAIT ON CEMENT 2 HOURS. TOP JOB # 2: CEMENT DOWN BACKSIDE WITH 300 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & .25 LB/SX FLOCELE, 61.4 BBLS MIXED AT 15.8 PPG WITH YIELD OF 1.15 CF/SX. 2 BBLS CEMENT RETURNS TO SURFACE. HOLE STOOD FULL. RIG DOWN PRO PETRO CEMENTERS. CEMENT JOB FINISHED @ 12:30 7/08/2013
7/28/2013	9:00 - 10:00	1.00	MIRU3	01	C	P		PREPARE & SKID RIG
	10:00 - 10:30	0.50	MIRU3	01	B	P		RIG UP ROTARY TOOLS
	10:30 - 11:00	0.50	PRPSPD	14	A	P		NIPPLE UP BOP'S & EQUIPMENT
	11:00 - 18:30	7.50	PRPSPD	15	A	P		MAKE UP TEST ASSY, PRESSURE TEST H&P EQUIPMENT - BLIND RAMS, PIPE RAMS, FLOOR VALVES, MANUEL VALVE, KILL LINES & KILL VALVES, BOP WING VALVES, HCR VALVE , INNER & OUTER CHOKE VALVES, CHOKE MANIFOLD TO 250 PSI LOW FOR 5MINUTES & HIGH TEST TO 5000 PSI FOR 10 MINUTES, TEST ANNULAR 250 PSI LOW FOR 5 MINUTES & 2500 PSI FOR 10 MINUTE HIGH TEST / TEST CASING FOR 30 MINUTES @ 1500 PSI

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW			Spud Date: 7/6/2013
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 6/16/2013		End Date: 8/1/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:30 - 19:00	0.50	PRPSPD	15	A	P		PRESSURE TEST MI SWACO PRESSURE CONTROL EQUIPMENT
	19:00 - 19:30	0.50	PRPSPD	14	B	P		INSTALL WEAR BUSHING
	19:30 - 21:00	1.50	PRPSPD	06	A	P		PICK UP & MAKE UP DIRECTIONAL BHA WITH WEATHERFORD,ORIENTATE ,SCRIBE & TEST SAME TIH TO 2,430'
	21:00 - 22:00	1.00	PRPSPD	09	A	P		SLIP & CUT 61' DRILLING LINE
	22:00 - 22:30	0.50	PRPSPD	07	A	P		SERVICE RIG & LEVEL DERRICK
	22:30 - 23:00	0.50	DRLPRC	02	F	P	2525	DRILL CEMENT & SHOE TRACK FROM 2,525' TO 2,647' CLEAN OUT RAT HOLE TO 2,677'
	23:00 - 0:00	1.00	DRLPRC	02	B	P	2677	DRILL /SLIDE / SURVEY/ F/ 2,677' TO 2,807'= 130' = 130 FPH WOB 20,000-23,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 1900/1700 TORQUE ON/OFF BTM 3000/2000 PICK UP WT 90,000 SLACK OFF WT 80,000 ROT WT 85,000 SLIDE 18' IN 5 MINS. 13.74% OF FOOTAGE DRILLED, 8.33%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 8.6 VIS 27 NOV-D WATER SWACO OFF LINE
7/29/2013	0:00 - 6:00	6.00	DRLPRC	02	B	P	2807	DRILL /SLIDE / SURVEY/ F/ 2,807' TO 3,577'= 770' = 128.33 FPH WOB 20,000-23,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2000/1700 TORQUE ON/OFF BTM 5000/3000 PICK UP WT 110,000 SLACK OFF WT 80,000 ROT WT 90,000 SLIDE 171' IN 135 MINS. 25.87% OF FOOTAGE DRILLED, 45%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 8.6 VIS 27 NOV-D WATER SWACO OFF LINE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 6/16/2013		End Date: 8/1/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 12:00	6.00	DRLPRC	02	B	P	3577	DRILL /SLIDE / SURVEY/ F/3,577' TO 4,413'= 836' = 139.33 FPH WOB 20,000-23,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2240/1850 TORQUE ON/OFF BTM 8000/5000 PICK UP WT 130,000 SLACK OFF WT 77,000 ROT WT 98,000 SLIDE 278' IN 190 MINS. 32.90% OF FOOTAGE DRILLED, 52.78%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 31 NOV-D WATER SWACO OFF LINE
	12:00 - 12:30	0.50	DRLPRC	07	A	P	4413	SERVICE RIG @ 4,413'
	12:30 - 0:00	11.50	DRLPRC	02	B	P	4413	DRILL /SLIDE / SURVEY/ F/ 4,413' TO 5,924'= 1511' =131.39 FPH WOB 20,000-23,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2600/2350 TORQUE ON/OFF BTM 10000/5000 PICK UP WT 195,000 SLACK OFF WT 100,000 ROT WT 128,000 SLIDE 133' IN 130 MINS. 8.80% OF FOOTAGE DRILLED, 18.84%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 33 NOV-D WATER SWACO OFF LINE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 6/16/2013		End Date: 8/1/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/30/2013	0:00 - 6:00	6.00	DRLPRV	02	B	P	5924	DRILL /SLIDE / SURVEY/ F/ 5,924' TO 6,774'= 850' =141.66 FPH WOB 20,000-24,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2600/2350 TORQUE ON/OFF BTM 10000/5000 PICK UP WT 200,000 SLACK OFF WT 105,000 ROT WT 135,000 SLIDE 20' IN 30 MINS. 2.44% OF FOOTAGE DRILLED, 8.33%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 34 NOV-D WATER SWACO OFF LINE
	6:00 - 14:30	8.50	DRLPRV	02	B	P	6774	DRILL /SLIDE / SURVEY/ F/ 6,774' TO 7,624'= 850' =141.66 FPH WOB 20,000-24,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 2640/2320 TORQUE ON/OFF BTM 13000/10000 PICK UP WT 231,000 SLACK OFF WT 113,000 ROT WT 151,000 SLIDE 40' IN 45 MINS. 4.71% OF FOOTAGE DRILLED,8.82%OF HRS DRILLED NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 34 NOV-D WATER SWACO OFF LINE
	14:30 - 15:00	0.50	DRLPRV	07	A	P	7624	SERVICE RIG @ 7,624

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW			Spud Date: 7/6/2013
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 6/16/2013		End Date: 8/1/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:00 - 0:00	9.00	DRLPRV	02	B	P	7624	DRILL / SURVEY/ F/ 7,624' TO 8,568'= 944' =104.89 FPH WOB 220,000-26,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 28002520 TORQUE ON/OFF BTM 13000/10000 PICK UP WT 255,000 SLACK OFF WT 110,000 ROT WT 162,000 NO SLIDES NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 9.1 VIS 34 NOV-D WATER SWACO OFF LINE 5' FLARE
7/31/2013	0:00 - 6:30	6.50	DRLPRV	02	B	P	8568	DRILL / SURVEY/ F/ 8,568' TO 9,103'= 535' =82.30 FPH WOB 22000-26,000 TOP DRIVE RPM 60-75 MUD MOTOR RPM 123 PUMPS 130 SPM = 585 GPM PUMP PRESSURE ON/OFF BTM 28002520 TORQUE ON/OFF BTM 13000/10000 PICK UP WT 255,000 SLACK OFF WT 110,000 ROT WT 162,000 NO SLIDES NO FLUID LOST PUMPING 10-15 BBL SWEEPS EVERY STAND,W/ 3-4% CAL CARB & ANCO FIBER MUD WT 11.9 VIS 39 NOV-D WATER SWACO OFF LINE START DISPLACING WELL @ 8,600'
	6:30 - 7:30	1.00	DRLPRV	05	C	P	9103	CIRCULATE BOTTOMS UP @ 9,103' TD
	7:30 - 13:00	5.50	DRLPRV	06	D	P	9103	WIPER TRIP FROM 9,103' TO S8 5/8 CASING SHOE 2,647',TIGHT SPOT 5220
	13:00 - 13:30	0.50	DRLPRV	07	A	P		RIG SERVICE
	13:30 - 16:00	2.50	DRLPRV	06	E	P		TRIP IN HOLE AFTER WIPER TRIP TO SHOE/NO TIGHT HOLE,BREAK CIRC @5720 WASH 90' TO BOTTOM 10' FILL
	16:00 - 17:30	1.50	DRLPRV	05	C	P		CIRCULATE BOTTOMS UP FOR TRIP OUT AND LOG,SPM 110 GPM 494, 10' FLARE 5 MINUTES ON BOTTOMS UP/NO LOSSES
	17:30 - 23:00	5.50	EVALPR	06	A	P		PUMP OUT 8 STNDS,TO 8500 PUMP PILL,TRIP OUT FOR LOGS/NO PROBLEMS
	23:00 - 0:00	1.00	EVALPR	11	D	P		PRE JOB SAFETY MEET W/ HALLIBURTON RIG UP& RUN TRIPLE COMBO LOGS
8/1/2013	0:00 - 4:00	4.00	EVALPR	11	D	P	9103	R/U & RUN TRIPLE COMBO,HIT BRIDGE@5180',WORK STUCK LOG LOOSE,LOG OUT MAKE CALLS,DECISION MADE TO RUN CASING

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: PROPETRO 12/12, H&P 298/298
Event: DRILLING	Start Date: 6/16/2013		End Date: 8/1/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	4:00 - 4:30	0.50	CSGPRO	14	B	P	9103	PULL WEARBUSHING
	4:30 - 13:00	8.50	CSGPRO	12	C	P	9103	RUN 4 1/2" CASING TO 9030/ SHOE DEPTH / FLOAT COLLAR @ 8984 / MVerde Marker @ 6936 / X-O @ 4920 /92 JTS OF LTC P-110 / 111 JTS OF DQX I-80 TOTAL JTS RAN 205 LAND HANGER WITH 85k
	13:00 - 17:30	4.50	CSGPRO	12	E	P	9103	NSTALL BJ CMT HEAD , TEST PUMP & LINES TO 5,000 PSI, ,DROP BOTTOM PLUG PUMP 25 BBLS FW PUMP 540 SKS LEAD CEMENT @ 12.5 PPG,190 BBL SLURRY (PREM LITE II + .0.25 pps CELLO FLAKE + 5 pps KOL SEAL +0.4 bwocFL52+ .05 lb/sx STATIC FREE + 8% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + 0.35 % R-3 + 101.8% FRESH WATER / (10.44 gal/sx,1.98 yield) + 1000 SX TAIL @ 14.3 ppg 235 BBL SLURRY (CLS G 50/50 POZ + 10% SALT + .005lbs/sx STATIC FREE + .2% R3 +0.5%bwocEC-1+ .002 GPS FP-6L + 2% BENTONITE + 58.9% FW / (5.94 gal/sx, 1.32 yield) / DROP TOP PLUG & DISPLACE W/ 139 BBLS H2O + ADDITIVES / PLUG DOWN @ 17:00 HOURS / FLOATS HELD W/ 1.50 BBLS H2O RETURNED TO INVENTORY/ GOOD CIRC / 12 BBLS LEAD BACK TO SURFACE FINALLIFT 2600
	17:30 - 18:00	0.50	CSGPRO	01	E	P	9103	FLUSH STACK AND SET PACK OFF
	18:00 - 19:00	1.00	RDMO	01	E	P	9103	RIG DOWN & PREP FOR SKID TO WELL #4,RIG RELEASE@19:00 8/1/2013

RECEIVED: Nov. 08, 2013

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-10B3DS YELLOW	Wellbore No.	OH
Well Name	NBU 1022-10B3DS	Wellbore Name	NBU 1022-10B3DS
Report No.	1	Report Date	9/30/2013
Project	UTAH-UINTAH	Site	NBU 1022-10C PAD
Rig Name/No.		Event	COMPLETION
Start Date	8/16/2013	End Date	10/11/2013
Spud Date	7/6/2013	Active Datum	RKB @5,328.00usft (above Mean Sea Level)
UWI	NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	6,968.0 (usft)-9,005.0 (usft	Start Date/Time	9/30/2013 12:00AM
No. of Intervals	52	End Date/Time	9/30/2013 12:00AM
Total Shots	207	Net Perforation Interval	61.00 (usft)
Avg Shot Density	3.39 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/30/2013 12:00AM	MESAVERDE/			6,968.0	6,971.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/30/2013 12:00AM	MESAVERDE/			6,988.0	6,991.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,282.0	7,284.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,304.0	7,306.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,336.0	7,339.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,420.0	7,421.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,437.0	7,438.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,447.0	7,448.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,472.0	7,473.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,646.0	7,647.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,676.0	7,677.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,750.0	7,751.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,770.0	7,771.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,800.0	7,801.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,839.0	7,840.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,897.0	7,898.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,959.0	7,960.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			7,968.0	7,969.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,003.0	8,004.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,074.0	8,075.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,110.0	8,111.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,130.0	8,131.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

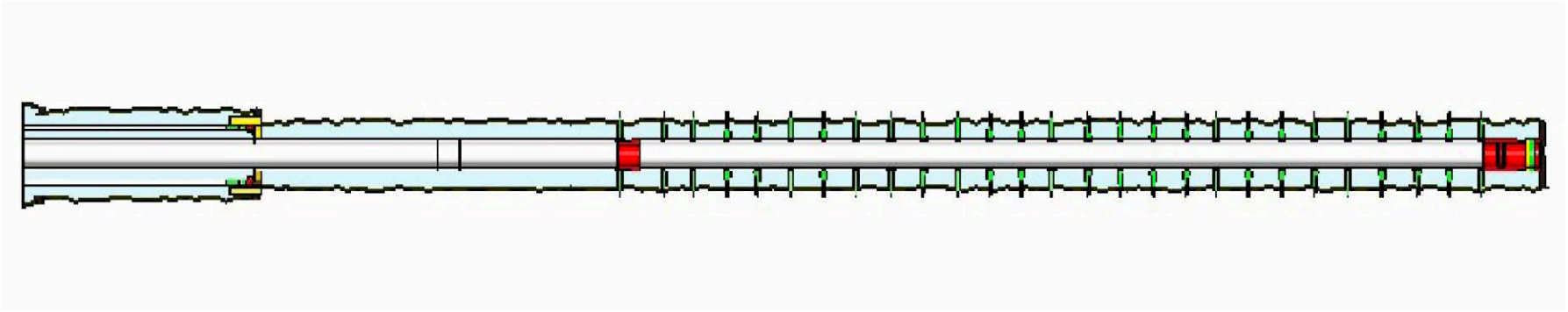
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/30/2013 12:00AM	MESAVERDE/			8,142.0	8,143.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,154.0	8,155.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,175.0	8,176.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,184.0	8,186.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,222.0	8,223.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,278.0	8,279.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,328.0	8,329.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,356.0	8,357.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,384.0	8,385.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,414.0	8,415.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,440.0	8,441.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,490.0	8,491.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,506.0	8,507.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,525.0	8,526.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,533.0	8,534.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,562.0	8,563.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,594.0	8,595.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,626.0	8,627.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,663.0	8,664.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,687.0	8,688.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,717.0	8,718.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/30/2013 12:00AM	MESAVERDE/			8,737.0	8,738.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,784.0	8,785.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,828.0	8,829.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,871.0	8,872.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,891.0	8,892.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,952.0	8,953.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,960.0	8,961.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			8,986.0	8,987.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
9/30/2013 12:00AM	MESAVERDE/			9,004.0	9,005.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: MILES 2/2
Event: COMPLETION	Start Date: 8/16/2013		End Date: 10/11/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/16/2013	-							
9/25/2013	9:00 - 10:00	1.00	SUBSPR	52	B	P		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 80 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. PRESSURE TEST 8 5/8 X 4 1/2 TO 531 PSI HELD FOR 5 MIN LOST -55 PSI,BLED PSI OFF, REINSTALLED POP OFF SWIFN 50 PRESSURE ON SURFACE CASING FILLED SURFACE WITH 5 BBLS H2O
9/26/2013	10:30 - 10:45	0.25		48		P		HSM,JSA
	11:00 - 13:00	2.00		37	C	P		MIRU CASEDHOLE SOLUTION PERFORATE STAGE 1 MESAVERDE AS DESIGN SWI W/O FRAC
9/30/2013	6:30 - 6:45	0.25		48		P		HSM,JSA
	7:00 - 10:38	3.63	FRAC	36	H	P		REFER TO STIMULATION PJR FOR FLUID, SAND AND CHEMICAL VOLUMES, ALL STAGES WERE PERFORATED ACCORDING TO PERF RECORD IN OPEN WELLS, ALL STAGES WERE STIMULATED TO VENDOR POST JOB REPORT. ALL PLUGS ARE HALIBURTON 8K CBPS PRESSURE TEST TO 8743 HELD FOR 15 MIN LOST 463 FRAC STG #1] WHP=1325#, BRK DN PERFS=4643#, @=4.1 BPM, INTIAL ISIP=2393#, FG=.71, FINAL ISIP=#, FG=., SWIFN W/O FRAC
10/1/2013	5:45 - 6:00	0.25		48		P		HSM,JSA

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: MILES 2/2
Event: COMPLETION	Start Date: 8/16/2013		End Date: 10/11/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:21 - 17:00	10.65	FRAC	36	H	P		REFER TO STIMULATION PJR FOR FLUID, SAND AND CHEMICAL VOLUMES, ALL STAGES WERE PERFORATED ACCORDING TO PERF RECORD IN OPEN WELLS, ALL STAGES WERE STIMULATED TO VENDOR POST JOB REPORT. ALL PLUGS ARE HALIBURTON 8K CBPS FRAC STG #1] WHP=1863#, BRK DN PERFS=4643#, @=4.1 BPM, INTIAL ISIP=2393#, FG=.71, FINAL ISIP=2544#, FG=.72, SET PLUG & PERFORATE STG #2 FRAC STG #2] WHP=2169#, BRK DN PERFS=3772#, @=4.5 BPM, INTIAL ISIP=2328#, FG=.70, FINAL ISIP=2472#, FG=.72, SET PLUG & PERFORATE STG #3 FRAC STG #3] WHP=1808#, BRK DN PERFS=3310#, @=4.1 BPM, INTIAL ISIP=2222#, FG=.70, FINAL ISIP=2328#, FG=.71, SET PLUG & PERFORATE STG #4 FRAC STG #4] WHP=1303#, BRK DN PERFS=5350#, @=3.9 BPM, INTIAL ISIP=2299#, FG=.71, FINAL ISIP=2642#, FG=.76,
10/2/2013	6:15 - 6:30	0.25		48		P		HSM,JSA
	7:00 - 17:00	10.00	FRAC	36	H	P		 SET PLUG PERFORATE STG #5 FRAC STG #5] WHP=1644#, BRK DN PERFS=3737#, @=3.8 BPM, INTIAL ISIP=2059#, FG=.69, FINAL ISIP=2146#, FG=.70, SET PLUG AND PERFORATE STG #6 FRAC STG #6] WHP=1239#, BRK DN PERFS=4656#, @=4.7 BPM, INTIAL ISIP=1817#, FG=.67, FINAL ISIP=2101#, FG=.71, SET PLUG AND PERFORATE STG #7 SWIFN W/O FRAC
10/3/2013	6:30 - 6:45	0.25		48		P		HSM,JSA

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: MILES 2/2
Event: COMPLETION	Start Date: 8/16/2013		End Date: 10/11/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 14:30	7.50	FRAC	36	H	P		FRAC STG #7] WHP=1022#, BRK DN PERFS=3601#, @=3.6 BPM, INTIAL ISIP=1710#, FG=.67, FINAL ISIP=2210#, FG=.73, SET PLUG AND PERFORATE STG #8 FRAC STG #8] WHP=1204#, BRK DN PERFS=2895#, @=3.7 BPM, INTIAL ISIP=2256#, FG=.75, FINAL ISIP=2066#, FG=.72, SET PLUG AND PERFORATE STG #9 FRAC STG #9] WHP=889#, BRK DN PERFS=2418#, @=3.7 BPM, INTIAL ISIP=645#, FG=.53, FINAL ISIP=981#, FG=.58, SET KILL PLUG TOTAL WATER=12,329 TOTAL SAND=253,409#
10/10/2013	7:00 - 7:15	0.25	DRLOUT	48		P		HSM, SLIPS, TRIPS & FALLS, RIGGING UP, PU TBG, P/T BOP
	7:15 - 16:00	8.75	DRLOUT	31	I	P		MIRU, ND WH, NU BOP, RU FLOOR & TBG EQUIP, PU 3 7/8" BIT, POBS, 1.875" XN S/N, TALLY & PU TBG TO KILL PLUG, RU P/S, FILL TBG & BREAK CIRC, P/T BOP TO 3,000 PSI, PREP TO D/O CBPS IN AM, SWI, SDFN.
10/11/2013	7:00 - 7:15	0.25	DRLOUT	48		P		HSM, SLIPS, TRIPS & FALLS, D/O CBP'S, LANDING TBG

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US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: MILES 2/2
Event: COMPLETION	Start Date: 8/16/2013		End Date: 10/11/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 16:00	8.75	DRLOUT	44	C	P		3 OF 4, SURFACE CSG VALVE OPEN & LOCKED, D/O 9 CBP'S THRU 3" FLOWLINE C/O 20' SAND, TAG 1ST PLUG @ 6,918', KICK 0 PSI ((NO FLOW W/O PUMP)), RIH C/O 30' SAND, TAG 2ND PLUG @ 7,021', KICK 0 PSI ((NO FLOW W/O PUMP)), RIH C/O 30' SAND, TAG 3RD PLUG @ 7,369', KICK 0 PSI ((NO FLOW W/O PUMP)), RIH C/O 100' SAND, TAG 4TH PLUG @ 7,707', KICK 100 PSI, CSG PRESS 400 PSI, RIH C/O 60' SAND, TAG 5TH PLUG @ 8,034', KICK 200 PSI, CSG PRESS 250 PSI, RIH C/O 30' SAND, TAG 6TH PLUG @ 8,213', KICK 300 PSI, CSG PRESS 250 PSI, RIH C/O 30' SAND, TAG 7TH PLUG @ 8,471', KICK 200 PSI, CSG PRESS 250 PSI, RIH C/O 30' SAND, TAG 8TH PLUG @ 8,653', KICK 500 PSI, CSG PRESS 300 PSI, RIH C/O 30' SAND, TAG 9TH PLUG @ 8,859', KICK 300 PSI, CSG PRESS 350 PSI PBTD @ 9,028', BTM PERF @ 9,005', RIH TAGGED @ 9,000', C/O TO 9,028' PBTD, 23' PAST BTM PERF W/ 287 JTS 2 3/8" L-80 & J-55 TBG, LD 12 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 275 JTS 2 3/8", EOT 8,646.59'. RD P/S, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL & SHEAR OFF BIT, P/T LINE FROM WH TO HAL 9000 TO 3,000 PSI, NO VISIBLE LEAKS, LET BIT FALL FOR 20 MIN. TURN OVER TO FLOW BACK CREW & SALES, RD TO MOVE ON MONDAY, SDFWE. KB= 26' 4 1/16" CAMERON HANGER= .83' TBG DELIVERED 150 JTS L-80 125 JTS 2 3/8" L-80= 3,965.58' TBG DELIVERED 150 JTS J-55 1 - 6' PUP JT L-80= 6.05' TOTAL TBG= 300 JTS L-80 & J-55 150 JTS 2 3/8" J-55 = 4,645.93' TBG USED 275 JTS POBS= 2.20' TBG RETURNED 25 JTS L-80 EOT @ 8,646.59'

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-10B3DS YELLOW		Spud Date: 7/6/2013	
Project: UTAH-UINTAH	Site: NBU 1022-10C PAD		Rig Name No: MILES 2/2
Event: COMPLETION	Start Date: 8/16/2013		End Date: 10/11/2013
Active Datum: RKB @5,328.00usft (above Mean Sea Level)	UWI: NE/NW/0/10/S/22/E/10/0/0/26/PM/N/918/W/0/1705/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								TWTR= 12,325 BBLS TWR= 4,000 BBLS TWLTR= 8,325 BBLS
	16:00 - 16:00	0.00	DRLOUT	50				WELL TURNED TO SALES @ 14:30 HR ON 10/11/2013. 1863 MCFD, 1680 BWPD, FCP 2438#, FTP 1800#, 20/64" CK.

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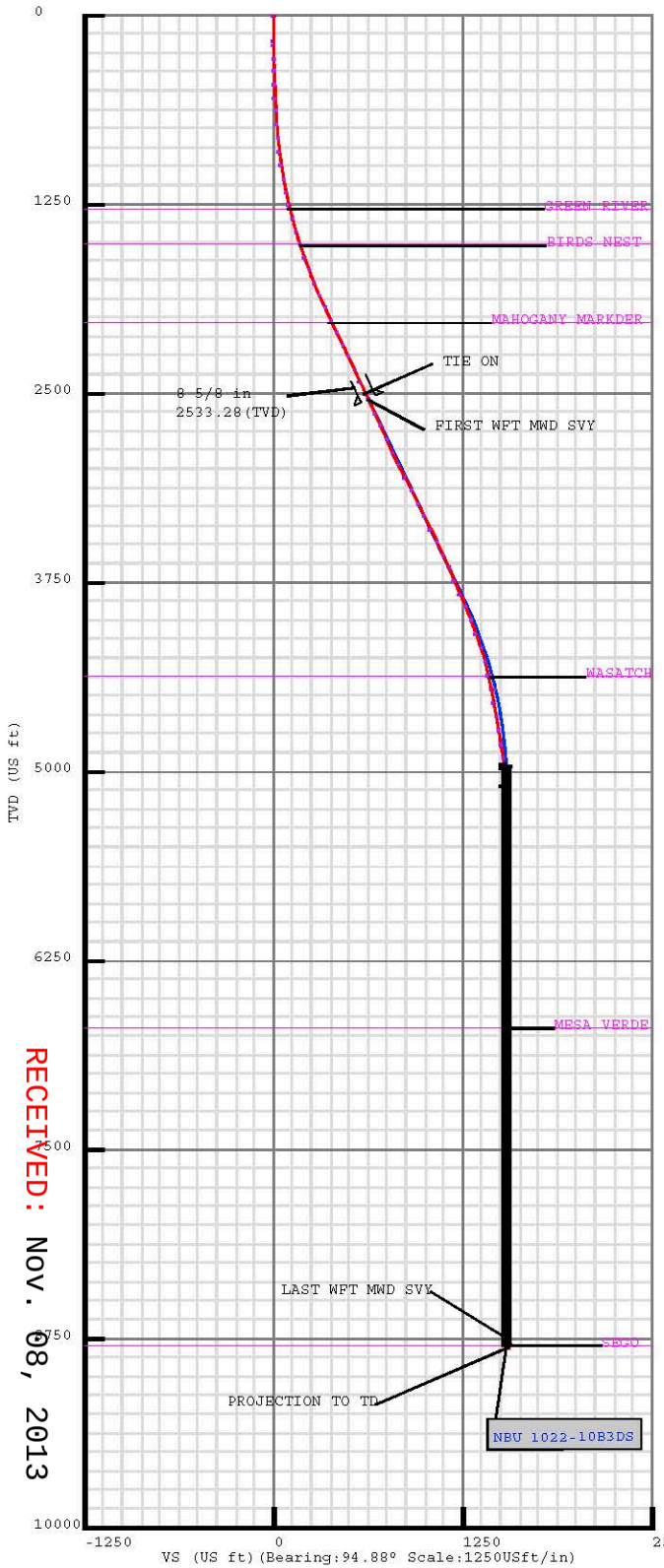
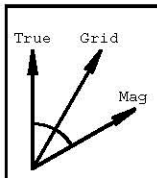




Grid Convergence: 1.01°
Mag Declination: 10.85°
Bearing:
True = Mag + 10.85°
Grid = True - 1.01°

Formation Point Information:

Name	TVD Elevation (USft)	(USft)	MD (USft)
GREEN RIVER	1280.00	4050.00	1288.44
BIRDS NEST	1518.00	3812.00	1535.98
MAHOGANY MARKDER	2033.00	3297.00	2092.57
WASATCH	4364.00	966.00	4654.74
MESA VERDE	6693.00	-1363.00	6992.00
SEGO	8798.00	-3468.00	9097.02

Target Set Information:
Name: 10B3DS

Name	TVD (USft)	Lat (°)	Long (°)
PBHL	8798.00	39.967891	-109.423068
25' CYL	6881.00	39.967891	-109.423068
INTERCEPT	4964.00	39.967952	-109.423179
DRILLER TGT	5097.02	39.967951	-109.423168

Plan Data for NBU 1022-10B3DS

Field: NATURAL BUTTES_ANADARKO_NBU 1022 10C PAD
Map Unit: USFt Vertical Reference Datum (VRD):
Projected Coordinate System: NAD27 / UTM zone 12N

Site: NBU 1022-10C PAD
Unit: USFeet TVD Reference:
Company Name: ANADARKO
Position: Northing: 14518364.54USft Latitude: 39.968257°
Easting: 2080702.83USft Longitude: -109.428638°
North Reference: True Grid Convergence: 1.01°
Elevation Above VRD: 5304.00USft

Slot: NBU 1022-10B3DS
Position:
Offset is from Site centre
+N/-S: -5.83USft Northing: 14518359.05USft Latitude: 39.968241°
+E/-W: 19.06USft Easting: 2080721.99USft Longitude: -109.428571°
Elevation Above VRD: 5304.00USft

Well: NBU 1022-10B3DS
Type: Main-Well
File Number:
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 5.83USft Azimuth: 94.88°
+E/-W: -19.06USft
Magnetic Parameters:

Model:	Field Strength:	Declination:	Dip:	Date:
BGGM	52080(nT)	10.85°	65.79°	2013-07-16

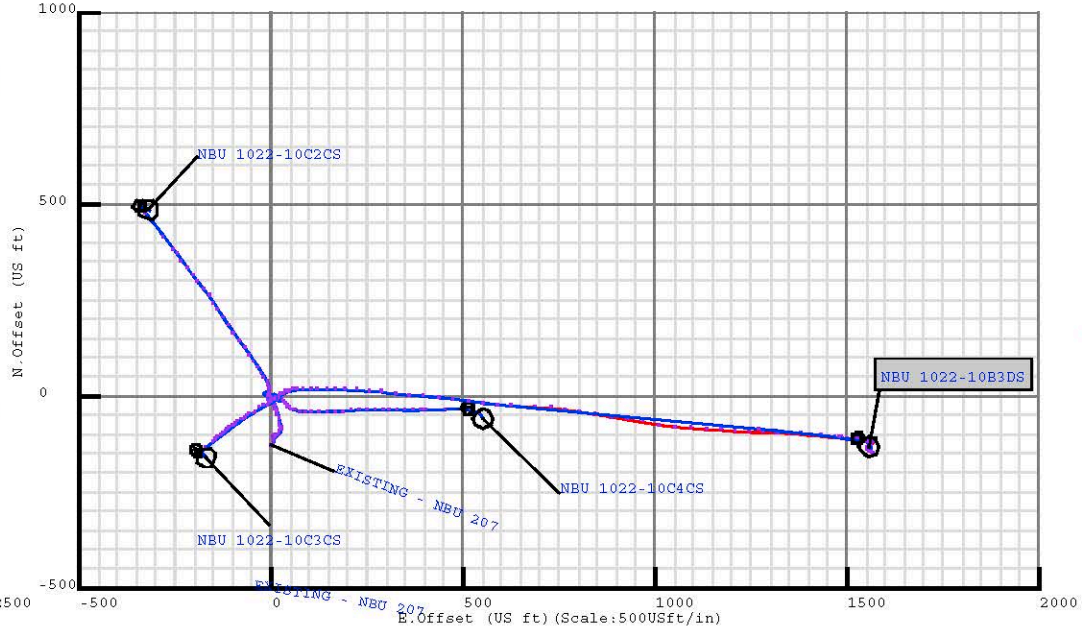
API well Number: 43047529960000

Survey Point Information:
DogLeg Severity Unit: °/100.00ft Position offsets from Slot centre

MD (USft)	Inc (°)	Az (°)	TVD (USft)	+N/-S (USft)	+E/-W (USft)	VSec (USft)	DLS (DLSU)	Toolface (°)	Build (DLSU)	Turn (DLSU)	Annotations
2611.00	25.50	95.33	2500.78	-18.45	608.94	608.30	0.34	336.7	0.31	-0.31	TIE ON
2664.00	25.56	94.19	2548.61	-20.35	631.70	631.14	0.93	276.4	0.11	-2.15	FIRST WFT MWD SVY
9053.00	1.50	118.23	8758.98	-140.93	1549.75	1556.12	0.08	246.3	-0.03	-2.83	LAST WFT MWD SVY
9103.00	1.50	118.23	8808.96	-141.55	1550.90	1557.32	0.00	0.0	0.00	0.00	PROJECTION TO TD

Casing Point Information:

Name	MD (USft)	TVD (USft)
8 5/8 in	2647.00	2533.28



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5D Survey Report

ANADARKO

Field Name:	*NATURAL BUTTES_ANADARKO_NBU 1022 10C PAD*
Site Name:	*NBU 1022-10C PAD*
Well Name:	*NBU 1022-10B3DS*
Survey:	*Definitive Survey*

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DEFINITIVE SURVEYS FOR THE NBU 1022-10B3DS

Site Name NBU 1022-10C PAD	**Units :** US ft	**North Reference** : True	**Convergence Angle :** 1.01
	Position	**Northing :** 14518364.54 US ft	**Latitude :** 39.968257
		Easting : 2080702.83 US ft	**Longitude :** -109.428639
	Elevation above:5304.00 US ft		
	Comment :		

Slot Name NBU 1022-10B3DS		**Position (Offsets relative to Site Centre)**	
	+N / -S : -5.83 US ft	**Northing :**14518359.05 US ft	**Latitude :** 39.968241
	+E / -W : 19.06 US ft	**Easting :**2080721.99 US ft	**Longitude :** -109.428571
	Elevation above : 5304.00 US ft		
	Comment :		

Well Name NBU 1022-10B3DS	**Type :** Main well	**UWI :**
	Rig Height *Well TVD Reference* : 26.00 US ft **Relative to :** 5330.00 US ft	**Comment :**
	Closure Distance : 1557.35 US ft	**Closure Azimuth :** 95.2148°
	Vertical Section (Position of Origin Relative to Slot)	
	+N / -S : 5.83 US ft	**+E / -W :** -19.06 US ft **Az :**94.88°

Target Set

Name : 10B3DS **Number of Targets :** 4

Comment :

TargetName: PBHL **Shape:** Cuboid		**Position (Relative to centre)**	
	+N / -S : -127.43US ft	**Northing :** 14518258.82 US ft	**Latitude :** 39°58'4.407600"
	+E / -W : 1542.23 US ft	**Easting :** 2082266.22US ft	**Longitude :** -109°25'23.044800"
	TVD (Well TVD Reference) : 8798.00 US ft		
	Orientation	**Azimuth :** 0.00°	**Inclination :** 0.00°
	Dimensions	**Length :** 1.00 US ft	**Breadth :** 1.00 US ft **Height :** 1.00 US ft

TargetName: INTERCEPT **Shape:** Cuboid	**Position (Relative to centre)** **+N / -S :** -105.04US ft **Northing :** 14518280.65 US ft **Latitude :** 39°58'4.628878" **+E / -W :** 1511.19 US ft **Easting :** 2082234.80US ft **Longitude :** -109°25'23.443415" **TVD (Well TVD Reference) :** 4964.00 US ft **Orientation** **Azimuth :** 0.00° **Inclination :** 0.00° **Dimensions** **Length :** 20.00 US ft **Breadth :** 20.00 US ft **Height :** 20.00 US ft
Target Name: 25' CYL **Shape:** Cylinder	**Position (Relative to centre)** **+N / -S :** -127.43US ft **Northing :** 14518258.82US ft **Latitude :** 39°58'4.407600" **+E / -W :** 1542.23US ft **Easting :** 2082266.22 US ft **Longitude :** -109°25'23.044800" **TVD (Well TVD Reference) :** 6881.00 US ft **Orientation** **Azimuth :** 1.01° **Inclination :** 0.00° **Dimensions** **Radius :** 25.00 US ft **Length :**3834.00 US ft
Target Name: DRILLER TGT **Shape:** Cylinder	**Position (Relative to centre)** **+N / -S :** -105.47US ft **Northing :** 14518280.28US ft **Latitude :** 39°58'4.624626" **+E / -W :** 1514.25US ft **Easting :** 2082237.87 US ft **Longitude :** -109°25'23.404107" **TVD (Well TVD Reference) :** 5097.02 US ft **Orientation** **Azimuth :** 1.01° **Inclination :** 0.00° **Dimensions** **Radius :** 15.00 US ft **Length :**1.00 US ft

Survey Name :Definitive Survey

Date : 02/Jul/2013 **Survey Tool :** **Comment :** **Company :**

Magnetic Model

Model Name: Default **Date:** 13/Jun/2013 **Field Strength:** 50000.0 nT **Declination:** 0.00° **Dip:** 0.00°

Survey Tool Ranges

Name	Start MD (US ft)	End MD (US ft)	Source Survey
MWD	0.00	2611.00	SURFACE MWD SURVEYS
MWD	2611.00	9103.00	WFT MWD SURVEY

5D Survey Report

Well path created using minimum curvature

Survey Points (Relative to centre, TVD relative to Well TVD Reference)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	39.968241	-109.428571	0.00	0.00	0.00	19.48	0.00	0.00	
172.00	0.79	350.39	171.99	1.17	-0.20	39.968244	-109.428572	0.46	350.39	172.00	19.19	-0.00	0.00	
200.00	0.79	2.78	199.99	1.55	0.22	39.968245	-109.428572	0.61	96.19	28.00	19.13	0.00	0.00	
287.00	1.93	33.01	286.97	3.38	0.61	39.968250	-109.428569	1.50	47.91	87.00	19.80	-0.00	0.00	
368.00	2.31	50.10	367.90	5.80	2.87	39.968257	-109.428561	1.38	47.51	81.00	21.85	-0.00	0.00	
458.00	3.51	55.41	457.76	8.78	6.83	39.968265	-109.428547	0.84	25.36	90.00	25.55	-0.00	0.00	
548.00	3.65	56.32	547.58	11.93	11.49	39.968274	-109.428530	0.17	22.55	90.00	29.91	-0.00	0.00	
638.00	3.69	58.68	637.40	15.02	16.34	39.968282	-109.428513	0.17	76.35	90.00	34.49	-0.00	0.00	
728.00	4.57	67.73	727.17	17.89	22.14	39.968290	-109.428492	1.21	41.10	90.00	40.02	-0.00	0.00	
818.00	6.26	77.72	816.76	20.29	30.25	39.968297	-109.428463	2.14	34.19	90.00	47.90	-0.00	0.00	
908.00	7.21	82.58	906.14	22.06	40.64	39.968302	-109.428426	1.23	33.39	90.00	58.10	-0.00	0.00	
998.00	8.38	84.25	995.25	23.49	53.16	39.968305	-109.428381	1.87	8.79	90.00	70.45	-0.00	0.00	
1088.00	10.29	87.24	1084.00	24.57	68.10	39.968308	-109.428328	1.66	20.93	90.00	85.25	-0.00	0.00	
1178.00	11.78	89.79	1172.33	24.99	85.32	39.968310	-109.428267	1.74	19.39	90.00	102.36	-0.00	0.00	
1268.00	13.54	90.65	1260.14	24.91	105.04	39.968309	-109.428196	1.97	6.53	90.00	122.02	-0.00	0.00	
1358.00	14.95	91.46	1347.37	24.49	127.18	39.968308	-109.428117	1.58	8.44	90.00	144.12	-0.00	0.00	
1448.00	16.27	91.64	1434.05	23.83	151.39	39.968306	-109.428031	1.47	2.19	90.00	168.30	-0.00	0.00	
1538.00	18.55	92.51	1519.92	22.85	178.30	39.968304	-109.427935	2.55	6.93	90.00	195.19	-0.00	0.00	
1628.00	19.74	91.81	1604.94	21.74	207.79	39.968301	-109.427830	1.35	348.75	90.00	224.67	-0.00	0.00	
1718.00	20.14	94.18	1689.55	20.13	238.44	39.968296	-109.427720	1.00	64.79	90.00	255.34	-0.00	0.00	
1808.00	22.25	96.12	1773.45	17.18	270.84	39.968288	-109.427605	2.47	19.29	90.00	287.88	-0.00	0.00	
1898.00	23.92	96.47	1856.24	13.31	305.91	39.968278	-109.427479	1.86	4.86	90.00	323.15	-0.00	0.00	
1988.00	24.36	94.01	1938.38	9.96	342.56	39.968268	-109.427349	1.22	292.50	90.00	359.95	-0.00	0.00	
2078.00	25.81	94.17	2019.88	7.23	380.61	39.968261	-109.427213	1.61	2.75	90.00	398.10	-0.00	0.00	
2168.00	26.04	95.38	2100.83	3.96	419.82	39.968252	-109.427073	0.64	67.05	90.00	437.45	-0.00	0.00	
2258.00	25.59	97.00	2181.85	-0.26	458.78	39.968240	-109.426934	0.93	123.26	90.00	476.63	-0.00	0.00	
2348.00	25.32	99.11	2263.11	-5.68	497.08	39.968225	-109.426797	1.05	107.53	90.00	515.24	-0.00	0.00	
2438.00	25.41	96.65	2344.44	-10.96	535.26	39.968211	-109.426661	1.18	273.77	90.00	553.74	-0.00	0.00	
2528.00	25.24	95.59	2425.79	-15.07	573.54	39.968200	-109.426524	0.54	248.97	90.00	592.22	-0.00	0.00	
2611.00	25.50	95.33	2500.78	-18.45	608.94	39.968190	-109.426398	0.34	336.69	83.00	627.78	-0.00	0.00	TIE ON
2664.00	25.56	94.19	2548.61	-20.35	631.70	39.968185	-109.426317	0.93	276.45	53.00	650.63	-0.03	0.23	FIRST WFT MWD SVY
2758.00	24.88	92.51	2633.65	-22.69	671.68	39.968179	-109.426174	1.05	225.71	94.00	690.66	0.39	1.62	
2853.00	23.43	93.53	2720.33	-24.73	710.50	39.968173	-109.426036	1.59	164.41	95.00	729.51	2.62	3.26	
2947.00	22.49	98.52	2805.89	-28.55	746.94	39.968163	-109.425906	2.30	118.06	94.00	766.14	7.04	2.42	
3041.00	25.15	97.74	2892.88	-33.90	784.52	39.968148	-109.425772	2.85	352.89	94.00	804.04	9.74	0.56	
3136.00	27.19	98.85	2978.13	-39.96	825.97	39.968131	-109.425624	2.21	13.99	95.00	845.86	8.57	-1.73	
3230.00	28.38	99.60	3061.29	-46.99	869.22	39.968112	-109.425469	1.32	16.70	94.00	889.55	4.71	-4.56	
3325.00	27.38	99.73	3145.27	-54.45	913.01	39.968091	-109.425313	1.05	176.58	95.00	933.82	0.65	-7.65	
3419.00	25.63	99.73	3229.38	-61.54	954.36	39.968072	-109.425166	1.86	180.00	94.00	975.62	-1.11	-10.76	

5D Survey Report

Survey Points (Relative to centre, TVD relative to Well TVD Reference)														
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
3513.00	26.81	98.98	3313.71	-68.28	995.34	39.968053	-109.425019	1.30	343.98	94.00	1017.02	-2.23	-13.61	
3608.00	26.81	95.73	3398.50	-73.77	1037.82	39.968038	-109.424868	1.54	268.55	95.00	1059.81	-3.68	-15.21	
3702.00	24.50	93.73	3483.23	-77.15	1078.37	39.968029	-109.424723	2.62	199.65	94.00	1100.50	-3.45	-14.93	
3796.00	25.13	93.85	3568.55	-79.76	1117.73	39.968022	-109.424583	0.67	4.63	94.00	1139.95	-2.37	-13.84	
3890.00	23.56	94.10	3654.19	-82.44	1156.39	39.968015	-109.424445	1.67	176.36	94.00	1178.69	-0.54	-12.87	
3985.00	21.81	94.35	3741.84	-85.14	1192.92	39.968007	-109.424314	1.84	176.96	95.00	1215.32	4.06	-12.09	
4079.00	23.25	91.48	3828.66	-86.94	1228.88	39.968002	-109.424186	1.93	321.30	94.00	1251.31	9.42	-10.05	
4174.00	24.13	91.10	3915.66	-87.80	1267.04	39.968000	-109.424050	0.94	349.98	95.00	1289.40	11.91	-7.11	
4268.00	20.31	91.35	4002.66	-88.55	1302.58	39.967998	-109.423923	4.07	178.70	94.00	1324.87	13.91	-4.31	
4362.00	19.94	93.60	4090.92	-89.94	1334.88	39.967994	-109.423808	0.91	116.60	94.00	1357.18	16.19	-2.82	
4457.00	17.44	97.10	4180.91	-92.72	1365.18	39.967986	-109.423700	2.88	157.49	95.00	1387.61	17.74	-3.30	
4551.00	15.50	95.10	4271.05	-95.58	1391.67	39.967978	-109.423605	2.15	195.34	94.00	1414.24	20.05	-2.50	
4646.00	13.06	95.17	4363.11	-97.68	1415.01	39.967973	-109.423522	2.57	179.63	95.00	1437.68	22.75	-1.69	
4740.00	11.44	94.91	4454.96	-99.43	1434.88	39.967968	-109.423451	1.72	181.82	94.00	1457.62	25.63	-0.59	
4834.00	10.28	93.81	4547.28	-100.79	1452.54	39.967964	-109.423388	1.25	189.59	94.00	1475.33	27.66	1.16	
4929.00	9.50	95.41	4640.87	-102.09	1468.80	39.967961	-109.423330	0.87	161.38	95.00	1491.64	28.21	1.40	
5023.00	9.25	97.96	4733.61	-103.87	1484.00	39.967956	-109.423276	0.52	122.30	94.00	1506.94	26.48	0.52	
5118.00	8.48	94.50	4827.48	-105.47	1498.55	39.967951	-109.423224	0.99	213.00	95.00	1521.57	22.29	2.29	
5212.00	7.23	87.93	4920.59	-105.80	1511.37	39.967950	-109.423178	1.64	212.47	94.00	1534.38	16.31	5.32	
5307.00	7.25	87.40	5014.84	-105.31	1523.33	39.967952	-109.423135	0.07	286.41	95.00	1546.25	8.49	6.21	
5401.00	6.13	102.45	5108.20	-106.13	1534.16	39.967949	-109.423097	2.20	129.89	94.00	1557.11	0.28	5.24	
5496.00	3.98	103.23	5202.83	-107.98	1542.32	39.967944	-109.423068	2.26	178.56	95.00	1565.40	-7.80	5.52	
5590.00	3.01	137.57	5296.66	-110.54	1547.16	39.967937	-109.423050	2.41	131.34	94.00	1570.44	-8.04	10.92	
5685.00	1.10	100.30	5391.60	-112.55	1549.74	39.967932	-109.423041	2.35	197.34	95.00	1573.19	-15.61	2.57	
5780.00	0.91	253.55	5486.59	-112.93	1549.92	39.967931	-109.423041	2.06	167.91	95.00	1573.39	15.10	4.58	
5874.00	0.88	236.85	5580.58	-113.51	1548.58	39.967929	-109.423045	0.25	255.25	94.00	1572.11	12.02	7.50	
6063.00	0.94	210.67	5769.56	-115.59	1546.55	39.967923	-109.423053	0.24	263.39	189.00	1570.26	4.66	10.87	
6252.00	1.13	195.10	5958.53	-118.73	1545.28	39.967915	-109.423057	0.18	296.09	189.00	1569.26	-1.10	10.64	
6441.00	1.19	179.73	6147.49	-122.49	1544.80	39.967905	-109.423059	0.17	273.17	189.00	1569.10	-6.81	9.91	
6630.00	1.25	176.98	6336.45	-126.51	1544.92	39.967894	-109.423058	0.04	314.32	189.00	1569.56	-10.39	8.17	
6819.00	1.56	180.85	6525.39	-131.14	1544.99	39.967881	-109.423058	0.17	18.96	189.00	1570.03	-13.62	8.51	
7007.00	1.44	176.48	6713.33	-136.06	1545.09	39.967867	-109.423058	0.09	221.46	188.00	1570.55	-18.29	6.85	
7196.00	2.06	325.48	6902.29	-135.63	1543.32	39.967868	-109.423064	1.79	161.68	189.00	1568.74	16.88	4.58	
7385.00	1.13	316.37	7091.21	-131.48	1540.10	39.967880	-109.423076	0.51	190.73	189.00	1565.19	9.80	6.52	
7574.00	0.33	222.12	7280.20	-130.54	1538.45	39.967882	-109.423081	0.64	195.91	189.00	1563.46	-7.32	6.53	
7668.00	0.88	345.85	7374.20	-130.04	1538.10	39.967884	-109.423083	1.17	138.20	94.00	1563.07	8.46	2.31	
7763.00	0.44	318.85	7469.19	-129.05	1537.68	39.967887	-109.423084	0.56	202.26	95.00	1562.57	4.79	5.91	
7857.00	0.37	301.57	7563.19	-128.62	1537.18	39.967888	-109.423086	0.15	231.73	94.00	1562.03	1.75	6.73	
7952.00	0.20	290.46	7658.19	-128.41	1536.76	39.967888	-109.423087	0.19	192.51	95.00	1561.60	-0.41	6.57	
8141.00	0.44	208.48	7847.19	-128.93	1536.11	39.967887	-109.423090	0.24	252.35	189.00	1560.99	-6.82	0.62	
8330.00	1.31	150.60	8036.16	-131.45	1536.82	39.967880	-109.423087	0.60	283.02	189.00	1561.92	-4.69	-6.71	

5D Survey Report

Survey Points (Relative to centre, TVD relative to Well TVD Reference)

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	CL (US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
8424.00	1.31	116.23	8130.14	-132.86	1538.31	39.967876	-109.423082	0.82	252.82	94.00	1563.52	-1.66	-8.53	
8613.00	0.81	140.89	8319.11	-134.85	1541.10	39.967871	-109.423072	0.35	149.51	189.00	1566.46	-7.43	-5.99	
8802.00	1.57	125.33	8508.07	-137.38	1544.05	39.967864	-109.423061	0.43	329.06	189.00	1569.62	-8.56	-7.70	
9053.00	1.50	116.23	8759.98	-140.93	1549.75	39.967854	-109.423041	0.08	246.27	251.00	1575.60	-13.18	-8.44	LAST WFT MWD SVY
9103.00	1.50	116.23	8808.96	-141.55	1550.90	39.967852	-109.423037	0.00	0.00	50.00	1576.81	-14.03	-8.34	PROJECTION TO TD

Formation Points (Relative to centre, TVD relative to Well TVD Reference)

Name	MD (US ft)	TVD (US ft)
GREEN RIVER	1288.44	1280.00
BIRDS NEST	1535.98	1518.00
MAHOGANY MARKDER	2092.57	2033.00
WASATCH	4646.92	4364.00
MESA VERDE	6986.67	6693.00
SEGC	9092.04	8798.00